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United States
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Agriculture

Forest Service

Alaska Region
Tongass National
Forest
R10-MB-298

June 1995



697/58

Bohemia Mountain Timber Sale

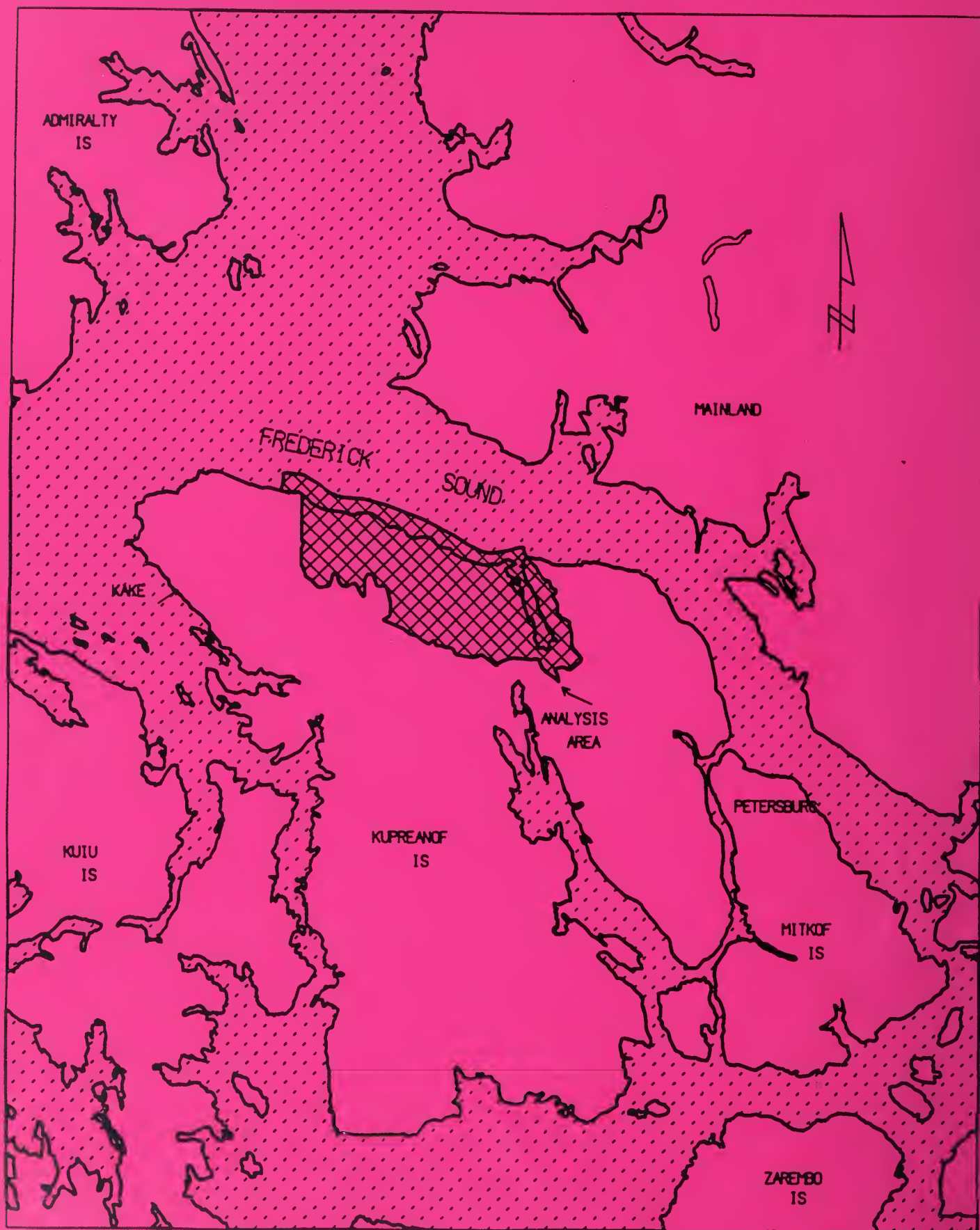
1995 Final Supplement
to the Bohemia Mountain
Supplemental Environmental
Impact Statement

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Stikine Area



Vicinity Map of Bohemia Mountain Analysis Area





United States
Department
of Agriculture

Forest
Service

Region 10
Tongass National Forest

Stikine Area
P.O. Box 309
Petersburg, Alaska 99833
(907-772-3841)

File Code: 1950/2430

Date: June 28, 1995

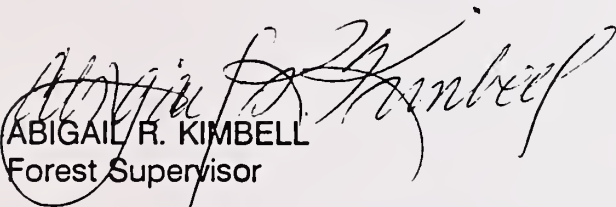
Dear Reviewer:

I have enclosed a copy of the Record of Decision and the Final Environmental Impact Statement for the Bohemia Mountain Timber Sale, Stikine Area, Tongass National Forest. The Record of Decision explains my decision to select Alternative 5B, which includes the harvest of 34 million board feet of timber from 1,381 acres and the construction of 27 miles of specified road.

The appeal period will begin the day after we publish notice of the decision in the Petersburg Pilot, the official newspaper of record for decisions made by the Stikine Area Forest Supervisor. The appeal period will last for 45 days. I expect the deadline to fall on August 21, 1995. We will implement the decision no sooner than 5 working days after the close of the appeal period.

As the Stikine Area Forest Supervisor, I am responsible for this decision. Please direct any correspondence or requests for additional copies to Dave Helmick, IDT Leader, PO Box 309, Petersburg, AK 99833, or call (907)772-3841.

Sincerely,


ABIGAIL R. KIMBELL
Forest Supervisor

Enclosure





1995 Supplement to the Bohemia Mountain SEIS

Bohemia Mountain Timber Sale

U.S.D.A. - Forest Service
Tongass National Forest
Stikine Area
June 1995

Responsible Agency:

*U.S.D.A. Forest Service
P.O. Box 309
Petersburg, Alaska 99833*

Responsible Official:

*Abigail R. Kimbell
Forest Supervisor
Stikine Area
Tongass National Forest*

*For Further Information
Contact:*

*David E. Helmick
IDT Leader
P.O.Box 309
Petersburg, Alaska 99833
(907) 772-3841*

Appeals Must Be Received:

*Within 45 days of the publication
date of the Notice of Record of
Decision for the Final EIS in the
Petersburg Pilot. Appeals must be
addressed in writing to Phil Janik,
Regional Forester, Federal Building,
Box 21628, Juneau, AK 99802-1628*

Abstract: This Final 1995 Supplement to the Bohemia Mountain Timber Sale EIS describes the resolution of three appeal issues regarding harvesting timber in the Bohemia Mountain study area.

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Content and Organization of the Supplement

Content

This 1995 Supplement to the 1993 Bohemia Mountain Timber Sale Supplemental Environmental Impact Statement (SEIS) is not intended to reiterate the content of the 1993 SEIS. Its intent is to document additional analysis done since the 1993 document, the public comment to the 1995 Draft SEIS, and Forest Service response to comments. To that end, this document is limited to how the modifications alter the analysis presented in the SEIS.

The Supplement should be viewed as an addendum to the original (1993) Bohemia Mountain Timber Sale SEIS and not as a replacement.

Organization

Chapter 1 describes the reasons for this Supplement and identifies the issues addressed in the FSEIS that are potentially affected by changes in the action alternatives.

Chapter 2 discusses how the proposed modifications affect the four action alternatives.

Chapter 3 describes changes to the Affected Environment resulting from the proposed modifications.

Chapter 4 provides thorough descriptions of the modifications and their effects.

Summary

Summary

Introduction

This summary covers the 1993 Final Supplemental Environmental Impact Statement (1993 FSEIS) for the Bohemia Mountain Timber Sale and this 1995 Final Supplement to the Supplemental Environmental Impact Statement (1995 FSEIS) for the Bohemia Mountain Timber Sale. The additional information in this supplement is related to a modified alternative resulting from an appeal of the Record of Decision (ROD) for the 1993 FSEIS and some additional analysis. This summary replaces the summary in the 1993 FSEIS.

This document displays the results of analyses to determine whether to implement or defer a timber sale on North Kupreanof Island under the direction of the current Forest Plan.

The project proposed in this document is one or more timber offerings designed to supply timber for the Stikine Area timber sale program. Timber sales are scheduled by the Forest Plan in order to maintain a supply of timber for southeast Alaska. In the Forest Plan, the analysis area was given Land Use Designations (LUD) IV and II.

LUD IV areas provide opportunities for intensive development of resources. Emphasis is primarily on commodity, or market resources and their use. Amenity values are also considered. When conflicts over competing resource uses arise, conflicts would most often be resolved in favor of commodity values. Allowances in calculated potential timber yield have been made to provide for protection of physical and biological productivity.

LUD II areas are to be managed in a roadless state to retain their wildland character, but permit wildlife and fish habitat improvement and primitive recreational facility development. Roads will not be built except to serve authorized activities such as vital Forest transportation system linkages. The 1993 FSEIS included an alternative that would have constructed a road through a LUD II area. That alternative is modified in this supplement so that the road does not enter LUD II lands.

Proposed Action

The Stikine Area of the Tongass National Forest proposes to offer up to 35 million board feet of commercial saw timber and associated road system within the Bohemia Mountain area on north Kupreanof Island. The timber may be sold in one or more timber sales beginning in 1995, and would be transported to salt water over the Little Hamilton and Portage Bay log transfer facilities.

Purpose and Need

The purpose of this project is to implement the Forest Plan by making between 10 and 40 MMBF of timber available for timber harvest as part of the Stikine Area independent sale program. The project site is located in the Bohemia Mountain area on north Kupreanof Island. The need is to supply timber volume from the Tongass National Forest to industry in an environmentally sensitive manner consistent with current Forest Plan land use designation. The transportation development associated with the harvest of this timber will provide the long-term transportation needs for National Forest administration, motorized recreation, firewood gathering, and access to the area by local residents.

Decisions to be Made

- a. Will a timber sale and associated roads be offered in the planning area at this time?
- b. If a sale takes place, how much timber will be cut; where will the units and roads be located; which log transfer facility(s) will be used; and where will the camp and sort yard be built?
- c. If a sale takes place, what special measures would be needed to protect fish, wildlife, recreation, subsistence, and visual resource values?

Issues

Alternatives were developed to address the issues that were identified by the public and by Forest Service resource specialists. The issues addressed are:

1. Potential effects of timber harvest on water quality, fisheries and soils
2. Potential effects on wildlife and wildlife habitat
3. Effects on subsistence resources and users
4. Effects on recreation resources and users
5. Effects on the Wilderness Area and associated values
6. Potential impacts to heritage resources
7. Maintenance of scenic quality
8. An economically viable timber sale
9. An appropriate transportation system, including a Kake/Portage road connection
10. Effects on the candidate Wild and Scenic River designation

Additional analysis was also conducted to address the following items:

1. Rooding through LUD II lands
2. The addition of two timber harvest units
3. Incomplete USFS sensitive species (plants and animals) assessment
4. Additional wetlands analysis
5. Changes to the status of threatened, endangered, and candidate species

This additional analysis is documented in this supplement.

Alternatives Considered

Alternative 1

The "No Action" alternative would defer timber harvest and road construction.

Alternative 3

This alternative was developed to defer harvest on Bohemia Mountain and to maintain old growth wildlife habitat. Its objectives were to avoid wildlife habitat fragmentation and to provide an economic offering. Units are concentrated in Portage Bay and old growth habitat fragmentation is minimized. This is the only alternative that projects a positive mid-market value. However, based upon current market conditions and demands for timber resources, other alternatives are anticipated to produce stumpage values above base rates (minimum rate the USFS will sell timber). Approximately 10.6 million board feet of timber on 339 acres would be harvested. An estimated 0.4 mile of specified road would be constructed.

Alternative 4A

This alternative emphasizes timber harvest, while still maintaining visual quality and amenity protection. No new harvest units would occur in Portage Bay. The mainline road (6032.2) would be constructed north and west of Bohemia Mountain, avoiding the potential Wild and Scenic River corridor along Duncan Salt Chuck Creek. Approximately 18.1 million board feet of timber on 827 acres would be harvested. An estimated 22.8 miles of specified road would be constructed.

Alternative 5B

This alternative harvests the most timber. It combines the Bohemia Mountain units with those in Portage Bay. A mainline road from Bohemia Mountain to Portage Bay would be constructed. Both the Portage Bay and Little Hamilton log transfer facilities (LTFs) would be utilized. The mainline road would be constructed outside the potential Wild and Scenic River corridor along Duncan Salt Chuck Creek and outside of management area S-14, LUD II lands. Approximately 34.3 million board feet of timber on 1,381 acres would be harvested. An estimated 27.6 miles of specified road would be constructed.

Alternative 6

This alternative harvests one unit less than Alternative 5B. Approximately 33.6 million board feet of timber on 1,346 acres would be harvested. Both the Portage Bay and Little Hamilton LTFs would be utilized, but most of the volume from the Bohemia Mountain units would be hauled to the Little Hamilton LTF in this alternative. A mainline road would be constructed north and west of Bohemia Mountain, avoiding the potential Wild and Scenic River corridor along Duncan Salt Chuck Creek. An estimated 25.7 miles of specified road would be constructed.

Consequences

Water Quality and Fisheries

The risk to fisheries is estimated by several factors: (1) the total length of roads, (2) the total number of stream crossings, (3) the total length of buffered and unbuffered Class I and II stream channels, and (4) the total acres of harvest within fish stream watersheds. While any harvest activity poses some risk to resources, no measurable effects are anticipated to fisheries or water quality, and there should be no habitat-related reduction in the fish population if Best Management Practices and Aquatic Habitat Management Unit guidelines are followed.

Alternatives 5B and 6 would pose the greatest potential risk to fisheries in terms of the number of Class I and II watersheds entered, total existing and proposed road miles, number of stream crossings, and amount of acres harvested. Evaluated by the same criteria, Alternative 3 would pose the least potential risk to fisheries of the action alternatives.

Wildlife Habitat

All action alternatives would harvest some acres of high value wildlife habitat. Alternatives 4A, 5B, and 6 harvest 5 acres (0.2%) of high value eagle habitat. High value otter habitat harvested ranges from 8 acres (0.2%) in Alternative 3 to 19 acres (0.5%) in Alternative 5B. High value black bear habitat harvested ranges from 281 acres (1.3%) in Alternative 3 to 1,210 acres (5.5%) in Alternative 5B. High value marten habitat harvested ranges from 179 acres (2.1%) in Alternative 3 to 617 acres (7.1%) in Alternative 5B. High value deer habitat harvested ranges from 211 acres (3.7%) in Alternative 4A to 597 acres (14.4%) in Alternative 5B. No alternatives allow harvesting within 500 feet of the beach fringe or within 1,000 feet of estuaries.

Summary

Subsistence

Three key factors are used to assess subsistence impacts: access, changes in competition with non-rural users, and the abundance and distribution of subsistence resources.

Traditional means of access to the analysis area is by boat, foot, motorized vehicle or float plane. The existing road system allows seasonal access to a portion of the study area on north Kupreanof Island. The proposed roads will increase access to the area from Kake by adding 5.0 miles of road in Alt. 5B; 22.8 miles of road in Alt. 4A; and 25.3 miles of road in Alt. 6.

No increase in competition from non-rural users is anticipated. This conclusion is based on several factors: subsistence use in the area has been very low in the past, the road system will not connect Portage Bay to Kake, and the Portage Bay logging camp will only be used on an intermittent basis.

Changes in the abundance and distribution of subsistence resources are projected to be minimal, with the exception of the Sitka black-tailed deer.

Recreation

The primary recreation place that would be impacted by timber harvest is the Portage Mountain Loop Trail. The mainline road in Alternative 5B would cross this trail in two places. Some changes in the Recreation Opportunity Spectrum (ROS) class would occur within the analysis area under any of the action alternatives.

A public recreation cabin was constructed at West Point in Portage Bay during 1994. Impacts to cabin users from timber harvest would include changes to the view from the site due to roading and timber harvest, and noise coming from equipment used to sort and load logs at the LTF site.

Wilderness

Alternatives 5B and 6 would have an impact on the Wilderness ROS setting. About 160 acres of the Petersburg Creek-Duncan Salt Chuck Wilderness could be affected by logging and road building activities occurring adjacent to the Wilderness.

Heritage Resources

No heritage resource sites were discovered in any of the planned timber harvest units during field survey. The Alaska State Historic Preservation Officer has concurred with the Forest Service finding that no heritage resource sites would be affected.

Scenic Quality

All of the action alternatives would have visual effects on viewers travelling in Portage Bay and along the Frederick Sound shoreline. Generally, the short term effects of the helicopter-logged clearcuts would be less than those associated with the cable yarded units, because fewer roads would be necessary and more vegetation would be left standing after harvest. A segment of road 6031 as it was realigned around the LUD II lands may be seen from Portage Bay. However, it will not affect the visual quality objective for that area.

Timber Sale Economics

Only Alternative 3 is projected to show a positive mid-market value. The mid-market assessment is based on weighted average pond log values, estimated logging and roading costs, normal profit ratios, and base rates in effect on January 22, 1990. Using this assessment method, the other action alternatives show negative net comparative values due to the capital investment in specified road construction.

An analysis using current pond log value estimates in place of "mid-market" pond log values indicates that this sale will be profitable to the operator of average efficiency. This reflects the significant increase in end-product selling values since 1990.

Transportation

No alternatives would construct a Kake/Portage road connection and no alternative constructs road within LUD II designated lands. The Alternative 5B road connection would haul timber from Bohemia Mountain to the Portage Bay Log Transfer Facility (LTF). Alternatives 4A, 5B and 6 would also use the Little Hamilton LTF and maintain two existing separate road systems.

Candidate Wild and Scenic River Designation

No alternative proposes activity within ¼ mile of the Wild and Scenic River candidate Duncan Salt Chuck Creek. Decision on suitability for wild, scenic or recreation river designation is deferred to the Forest Plan Revision process. Units visible from the creek have been designed to apply special emphasis to visual quality and meet the visual quality objective of "partial retention."

Mitigation of Consequences

If an action alternative is selected, the following steps are required:

- (a) Minimum 330-foot buffers will be maintained around eagle nest trees.
- (b) All known or discovered heritage sites will be protected. If additional sites are discovered once the sale is in operation, protective measures will be taken under the timber sale contract provisions.
- (c) Full bench construction and removal of excess excavated material will be required on designated areas for soil stability.
- (d) Pursuant to the Tongass Timber Reform Act, there will be no commercial timber harvesting within a buffer zone no less than one hundred feet in width on each side of all Class I streams, and those Class II streams which flow directly into a Class I streams. In addition, stream protection will include provision of buffer areas and other protective actions consistent with aquatic habitat management unit (AHMU) guidelines pertaining to (1) unstable banks, (2) temperature sensitivity, (3) sedimentation, and (4) large, woody debris for rearing habitat, nutrient retention, and streambed stabilization.
- (e) Class III channels will receive appropriate protection according to Best Management Practices (BMPs, see Forest Service Handbook 2509.22). See unit descriptions, Appendix A, for specific BMPs.
- (f) The scenic quality will be protected to meet the visual quality objectives for the Bohemia Mountain Analysis Area as stated in the current Forest Plan. Landscape design principles will be used to locate and design rock pits, sort yards, and other related facilities.
- (g) Rock pit and roadside rehabilitation will be implemented in areas that are heavily disturbed.

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Chapter 1

Purpose and Need

Chapter 1

Purpose and Need

Background

This document presents supplemental information to the analysis documented in the Bohemia Mountain Timber Sale FSEIS of July 1993 (1993 FSEIS). The additional information presented in this supplement is related to a modified alternative resulting from an appeal of the Record of Decision for the 1993 FSEIS and some additional analysis. The reader will need both documents to get a complete picture of the proposed action, alternatives being considered, and the effects of those alternatives.

Appeal

On December 27, 1993, the Narrows Conservation Coalition filed an appeal of the Record of Decision (ROD) regarding the Bohemia Mountain Timber Sale Final Supplemental Environmental Impact Statement (1993 FSEIS) and requested that implementation of the ROD be stayed. On January 6, 1994, a Request for Stay was granted. The City of Kupreanof, the Alaska Forest Association and Michael Medalen were granted intervenor status.

A review was conducted by the Alaska Region Regional Forester. Discussion of the following items was found not to fully meet the requirements of the Council on Environmental Quality National Environmental Policy Act regulations, Forest Service Manual and Handbook direction, and the Tongass Land Management Plan (Forest Plan, or TLMP):

Item 1: Roading through LUD II lands

Item 2: The addition of Unit 541 following publication of the supplemental draft (1993 DSEIS)

Item 3: Region 10 "Sensitive" species list and management objectives for those species existing in the Bohemia Project Area

The appellants and intervenors were notified of this decision by the Regional Forester by mail on April 11, 1994.

Additional Analysis

In addition to the above mentioned substantiated appeal points, additional analysis was also conducted for two other items: wetlands and threatened, endangered, and candidate species.

Wetlands

More analysis was needed to address the issue of wetlands, particularly an assessment regarding the values and functions of wetlands.

1 Purpose And Need

Threatened, Endangered, and Candidate Species

There have been changes to the threatened, endangered, and candidate species lists since the printing of the 1993 FSEIS. The additional analysis encompasses these changes.

Proposed Action

The Stikine Area of the Tongass National Forest proposes to offer up to 35 million board feet of commercial saw timber and associated road system within the Bohemia Mountain area on north Kupreanof Island. The timber may be sold in one or more timber sales beginning in 1995, and would be transported to salt water over the Little Hamilton and Portage Bay log transfer facilities.

Purpose and Need

The purpose of this project is to implement the Forest Plan by making between 10 and 40 MMBF of timber available for timber harvest as part of the Stikine Area independent sale program. The project site is located in the Bohemia Mountain area on north Kupreanof Island. The need is to supply timber volume from the Tongass National Forest to industry in an environmentally sensitive manner consistent with current Forest Plan land use designation. The transportation development associated with the harvest of this timber will provide the long-term transportation needs for National Forest administration, motorized recreation, firewood gathering, and access to the area by local residents.

Issues

Issues were categorized in Chapter 1 of the 1993 FSEIS. This Supplement addresses the same issues, but only to the extent that associated environmental consequences are affected by the proposed modifications.

The issues that are addressed are:

1. Potential effects of timber harvest on water quality, fisheries and soils
2. Potential effects on wildlife and wildlife habitat
3. Effects on subsistence resources and users
4. Effects on recreation resources and users
5. Effects on the Wilderness Area and associated values
6. Potential impacts to heritage resources
7. Maintenance of scenic quality
8. An economically viable timber sale
9. An appropriate transportation system, including a Kake/Portage road connection
10. Effects on the candidate Wild and Scenic River designation

Additional analysis items addressed in this supplement are:

1. Roving through LUD II lands
2. The addition of two new harvest units
3. Incomplete USFS sensitive species (plants and animals) assessment
4. Additional wetlands analysis
5. Changes to the status of threatened, endangered, and candidate species

Chapter 2

Alternatives

Chapter 2

Alternatives

Modifications to Alternatives

- The modifications associated with Appeal Item 1 (Roading through LUD II designated lands) affect only Alternative 5B.
- Resolution of Appeal Item 2 (Addition of Unit 541) and Appeal Item 3 (Sensitive Species) have no effect on the alternatives.
- The expanded wetlands analysis had no effect upon the alternatives.
- The Candidate Species effects analysis had no effect on the alternatives.

Alternative 5B

This summary of Alternative 5B replaces the summary found in the 1993 FSEIS, Chapter 2, page 10.

Objective

Alternative 5B was designed to harvest the greatest volume of timber. Both the Portage Bay and the Little Hamilton LTFs would be used; most of the timber would be hauled to the Portage Bay LTF. Harvest units are located on the south and east sides of Bohemia Mountain and in east Portage Bay.

Volume and Acreage of Timber Harvested in Alternative 5B by Logging System

	Timber (MMBF)	Acres Harvested
Cable Logging Systems	26.7	1,147
Shovel Logging Systems	2.3	100
Helicopter Logging Systems	5.3	134
All Logging Systems	34.3	1,381

Impacts

Water and Fisheries. Road construction under this alternative would require 37 stream crossings. Three and one-half miles of stream would be buffered adjacent to harvest units.

2 Alternatives

Wildlife. The percentage reduction in high value habitat for each of the five Management Indicator Species would be:

- Within VCU 442: bald eagle, 0%; otter, 0.7%; black bear, 8.2%; marten, 10.2%; and Sitka black-tailed deer, 13.4%.
- Within VCU 424: bald eagle, 0.4%; otter, 0.4%; black bear, 4.7%; marten, 5.4%; and Sitka black-tailed deer, 8.1%.

This alternative harvests the greatest amount of high value wildlife habitat (See Table 2-11 in 1993 FSEIS).

Subsistence. Alternative 5B has some potential to affect subsistence resources. There would be increased access to the Bohemia Mountain area from the Portage Bay logging camp and more competition for subsistence resources. Habitat for some subsistence resources may be affected.

Wilderness. Approximately 160 acres of semi-primitive non-motorized ROS (Recreation Opportunity Spectrum) setting within the Wilderness would change to a roaded modified setting because the road and timber harvesting activities outside the Wilderness would be partially audible and visible within the Wilderness Area.

Scenic Quality. Alternative 5B would visually affect Portage Bay to a slightly greater degree than Alternatives 3 or 6. Effects of past and proposed activities east of Portage Bay would likely meet a "partial retention" visual quality objective (VQO) near the mouth and a "modification" VQO near the head of the bay. As seen from Portage Bay, activities west of the bay would likely produce a visual condition of "modification." Scenic quality from Frederick Sound would likely meet a "modification" VQO. As seen from Bohemia Lakes, proposed harvest would likely meet a VQO of "partial retention." Proposed helicopter units east of Portage Bay would likely meet a VQO of "partial retention."

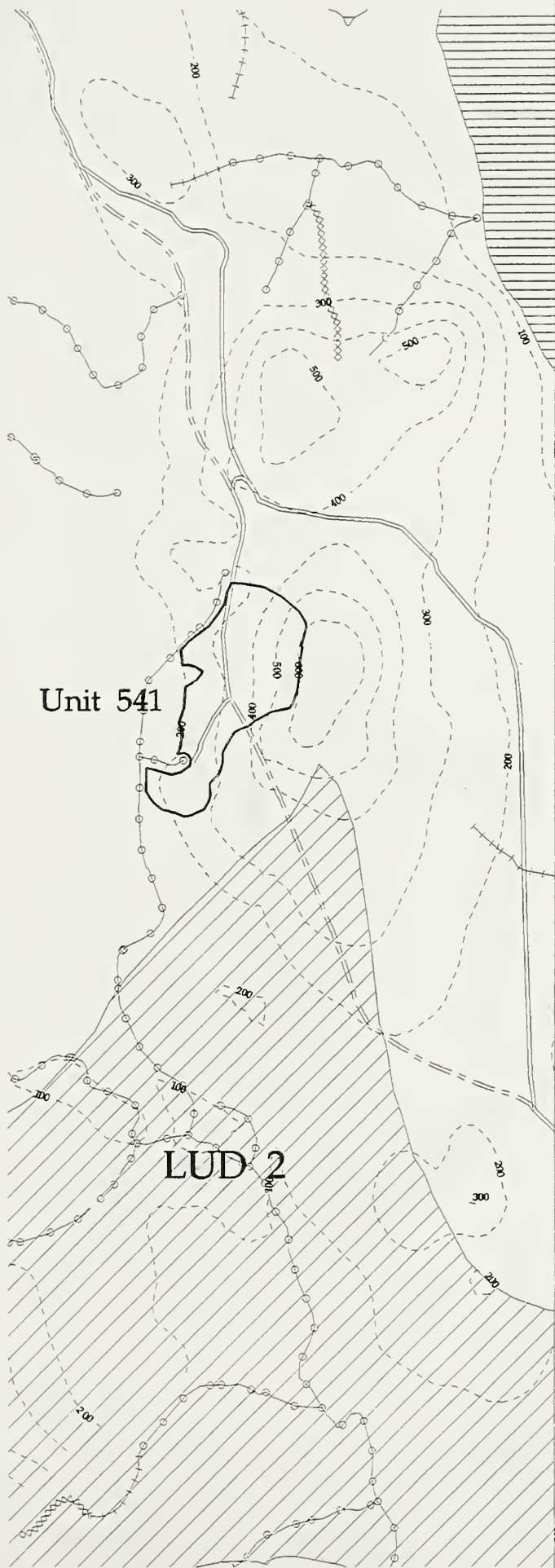
Timber Sale Economics. Alternative 5B harvests the most timber and builds the greatest amount of road. The helicopter logging units in this alternative are the same as for Alternatives 3 and 6.

The mid-market assessment is based on weighted average pond log values, estimated logging and roading costs, normal profit ratios, and base rates in effect on the date the Forest Service initiates the National Environmental Policy Act (NEPA) process with publication of a Notice of Intent in the Federal Register. The initial Notice of Intent for Bohemia Mountain Timber Sale EIS was published in the Federal Register on Monday, January 22, 1990. The mid-market net value is -\$84/MBF.

This mid-market net value reflects the capital investment in 27.6 miles of specified road. The capital investment for this road at this time may improve the economic viability of future entries. Due to strong pulp and sawlog markets, current market net pond log values are estimated to be \$166/MBF.

Transportation. Proposed road 6031 originally passed through LUD II lands and has been rerouted around the LUD II lands. This action lengthens road 6031 by approximately 0.5 mile. A spur road approximately 0.5 mile long is needed to access Unit 541. See Map 2-1. This alternative would construct approximately 27.6 miles of specified road. Both Portage Bay and Little Hamilton LTFs would be used.

2 By-Pass Route



LUD 2

Saltwater

Current Proposed Roads

Original Proposed Roads

Existing Roads

Proposed Harvest Units

AHMU-Class 1 Streams

AHMU-Class 2 Streams

AHMU-Class 3 Streams

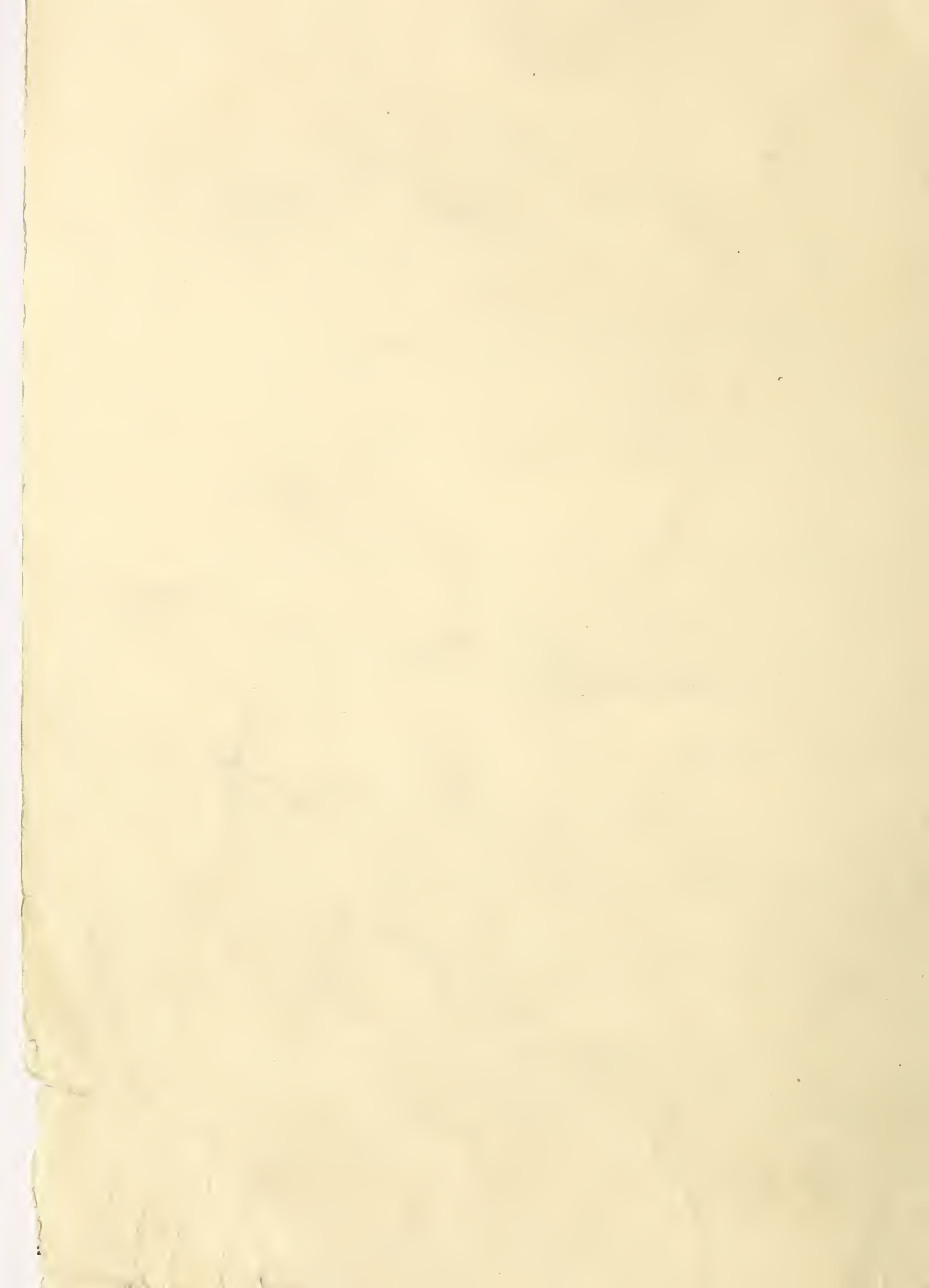
100-ft Elevation Contours

2373

4746

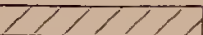
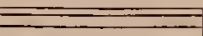




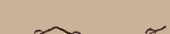



Scale is 1 inch = 2373 feet

N



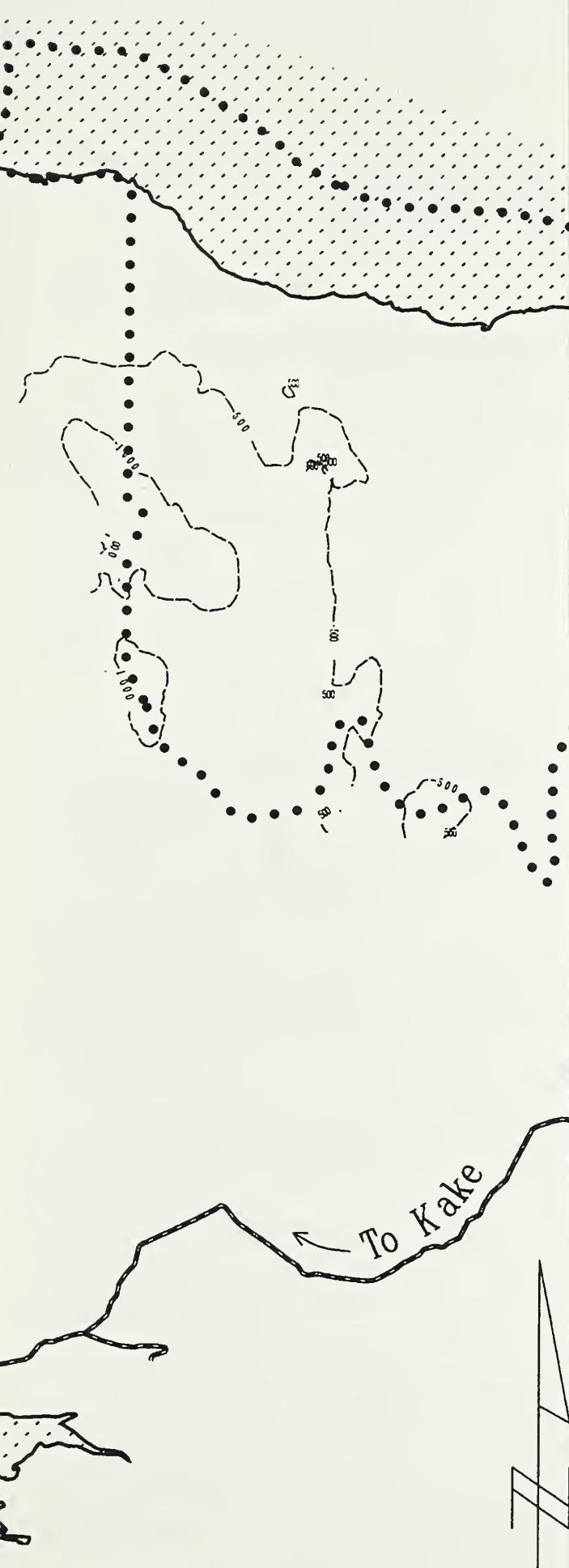
Map 2-1. LUD 2 By-Pass Route



-  LUD 2
-  Saltwater
-  Current Proposed Roads
-  Original Proposed Roads
-  Existing Roads
-  Proposed Harvest Units
-  AHMU-Class 1 Streams
-  AHMU-Class 2 Streams
-  AHMU-Class 3 Streams
-  100-ft Elevation Contours

0 2373 4746
 Scale is 1 inch = 2373 feet



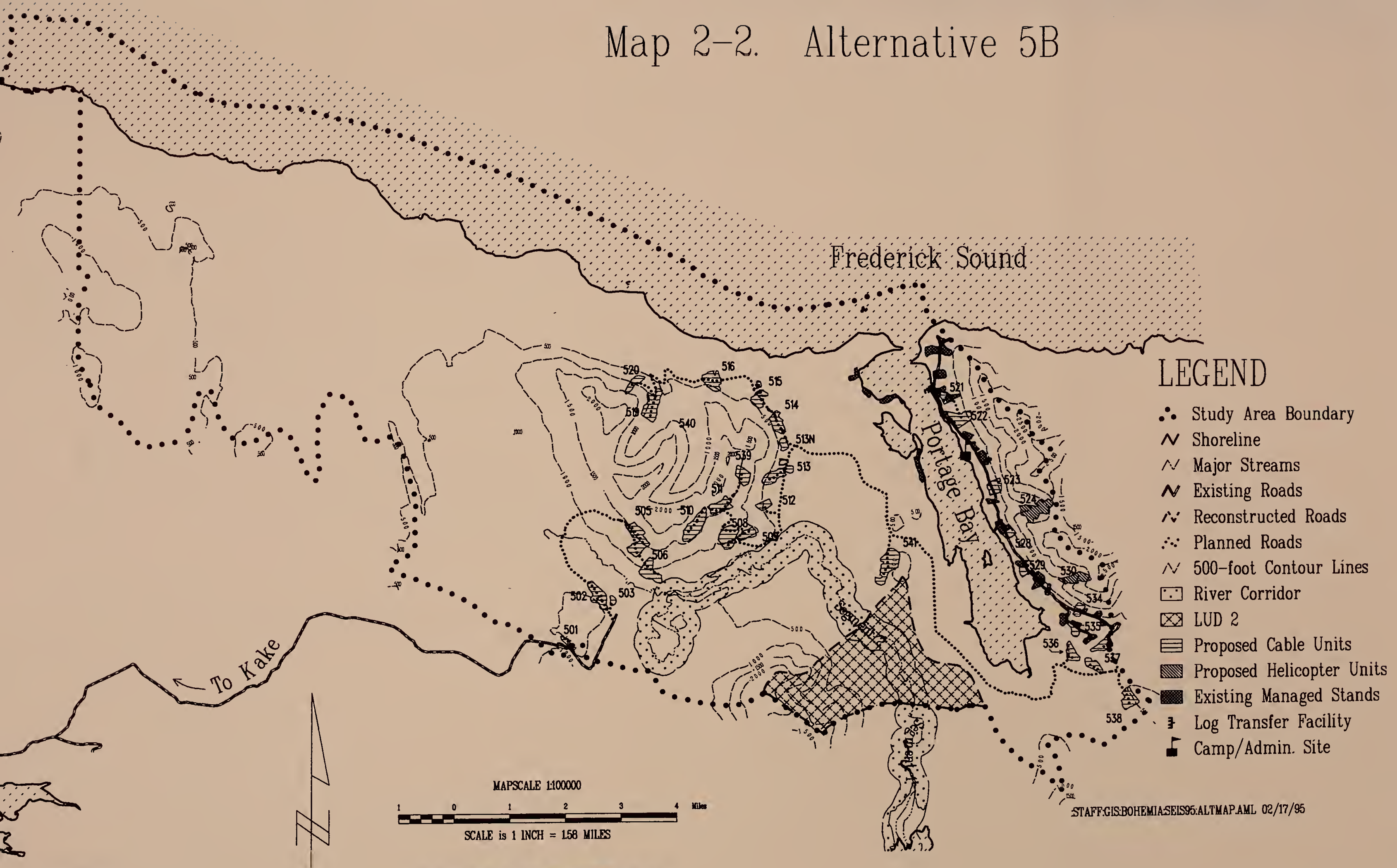


LEGEND

- ⋯ Study Area Boundary
- ~ Shoreline
- ^ Major Streams
- Existing Roads
- - - Reconstructed Roads
- ⋯ Planned Roads
- ~ 500-foot Contour Lines
- ▨ River Corridor
- ▩ LUD 2
- ▬ Proposed Cable Units
- ▤ Proposed Helicopter Units
- ▦ Existing Managed Stands
- 🏠 Log Transfer Facility
- 🚩 Camp/Admin. Site

STAFF:GIS:BOHEMIA:SEIS95:ALTMAP.AML 02/17/95

Map 2-2. Alternative 5B



Comparison Tables *Tables 2-1 through 2-14 are displayed here as a condensed comparison of Alternatives. With few exceptions they are shown exactly as they appear in the 1993 FSEIS. Tables 2-3, 2-4, and 2-9 reflect changes due to the realignment of road 6031 in Alternative 5B.*

Timber Management

Table 2-1. Comparison of Timber Harvest Characteristics by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Total Sawlog Volume (MMBF)	0	10.6	18.1	34.3	33.6
Units over 100 acres	0	0	0	0	0
Proposed Acres Harvested (for the Bohemia Mountain Sale)	0	339	827	1381	1346
Cumulative Acres Harvested (within the Analysis Area)	382	721	1209	1763	1728

Table 2-2. Comparison of Proposed CFL Harvest by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Percentage of CFL Harvested					
Bohemia Mountain Sale	0%	1.2%	2.8%	4.9%	4.8%
Cumulative Harvest Activity in the Analysis Area	1.5%	2.7%	4.3%	6.4%	6.3%
Percentage of Adjusted Operable CFL Harvested					
Bohemia Mountain Sale	0%	2.3%	5.2%	9.2%	9.1%
Cumulative Harvest Activity in the Analysis Area	2.8%	5.1%	8.0%	12.0%	11.9%
Percentage of Standard Adjusted Operable CFL Harvested					
Bohemia Mountain Sale	0%	2.7%	9.5%	15.2%	14.9%
Cumulative Harvest Activity in the Analysis Area	5.0%	7.7%	14.5%	20.2%	19.9%
Acres of Standard Adjusted Operable CFL Harvested					
Bohemia Mountain Sale	0	205	827	1,247	1,212
Cumulative Harvest Activity in the Analysis Area	382	587	1,209	1,629	1,594
Percentage of Non-standard Adjusted Operable CFL Harvested					
Bohemia Mountain Sale	0%	2.2%	0%	2.2%	2.2%
Cumulative Harvest Activity in the Analysis Area	0%	2.2%	0%	2.2%	2.2%
Acres of Non-standard Adjusted Operable CFL Harvested					
Bohemia Mountain Sale	0	134	0	134	134
Cumulative Harvest Activity in the Analysis Area	0	134	0	134	134

2 Alternatives

Roads

Table 2-3. Miles of Road Constructed by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Specified Road Construction	0	0.4	22.8	27.6	25.7
Spur Road Construction	0	0.7	2.2	5.6	3.6
Road Reconstruction	0	0.4	0	0.4	0.4

Economics

Table 2-4. Comparison of Mid-Market Timber Sale Economics by Alternative

	1	3	4A	5B	6
Total Pond Log Selling Value (minus 60% normal profit) (\$/MBF)	0	234	243	241	241
Total Costs to the Operator (\$/MBF)	0	203	400	325	327
Mid-Market Net Value (\$/MBF)	0	31	-157	-84	-86

Table 2-5. Current Timber Value and Cost Estimates by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Timber Value (\$/MBF)*	0	613	636	631	631
Total Logging Costs (\$/MBF)	0	314	365	331	349
Specified Road Construction Costs (\$/MBF)	0	10	194	134	123
Total Costs (\$/MBF):	0	324	559	465	472
Net (\$/MBF):	0	289	77	166	159
Estimated Market Value	0	3,063,400	1,393,700	5,693,800	5,342,400

*Values and costs estimated from Third Quarter 1994 Residual Value Appraisal Data adjusted to pond log value.

Scenic Quality

Table 2-6. Visual Quality Objectives Resulting from the Cumulative Effects of Timber Harvest

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
VQO from Frederick Sound (TLMP direction: PR-M)	R	PR	R-M	PR-M	PR-M
VQO from Portage Bay (TLMP direction: PR-MM)	R-PR	PR-M	PR-M	PR-M	PR-M
VQO from Bohemia Lakes	P-R	PR	PR	PR	PR

P = Preservation, R = Retention, PR = Partial Retention, M = Modification, MM = Maximum Modification
(See Glossary for further clarification)

Table 2-7. Visibility of Proposed Activities - Percent of Proposed Harvest Acres Seen From Sensitive Viewpoints in Frederick Sound and Portage Bay.

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Bohemia VCU 424	0%	0%	49%	47%	47%
Portage VCU 442	0%	91%	0%	77%	77%

* Note: 30 percent of the total CFL can be seen in VCU 424, and 80 percent of total CFL can be seen in VCU 442

Table 2-8. Cumulative Percent of Seen CFL Acres Visually Affected by Past and Proposed Management Activities

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Bohemia VCU 424	0	0	9	9	9
Portage VCU 442	10	21	10	23	23

* Note: Nine percent of VCU 424 is seen CFL; 28 percent of VCU 442 is seen CFL. The numbers shown are percents of these totals; that is, past and proposed harvest with Alternative 3 would modify 21 percent of the 28 percent that is available in the Portage Bay VCU.

2 Alternatives

Fisheries/Water Quality

Table 2-9. Comparison of Impacts on Water Quality and Fish Habitat by Alternative.

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Number of Stream Crossings					
Bohemia Mountain Sale	0	3	31	37	36
Cumulative Number of Crossings In the Analysis Area	24	27	55	61	60
Number of Fish Watersheds (out of 10 total) Affected by Harvest					
Bohemia Mountain Sale	0	1	4	5	5
Cumulative Number of Watersheds Affected in the Analysis Area	1	1	5	5	5
Average Percentage of Fish Stream Watershed Area Harvested					
Bohemia Mountain Sale	0%	0.3%	1.5%	2.2%	2.2%
Cumulative Percentage of Fish Stream Watershed Area Harvested	0.3%	0.6%	1.8%	2.5%	2.5%

Table 2-10. Miles of Buffered Streams by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Bohemia Mountain Sale	0	0.88	1.86	3.52	3.52
Cumulative Number in the Analysis Area	0.55	1.43	2.41	4.07	4.07
Within Bohemia VCU 424	0	0.00	1.86	2.34	2.34
Within Portage VCU 442	0	0.88	0.00	1.18	1.18

Table 2-11. Miles of Unbuffered Streams by Alternative ¹

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Bohemia Mountain Sale	0	2.93	1.78	4.89	4.89
Cumulative Number in the Analysis Area	1.25	4.18	3.03	6.14	6.14
Within Bohemia VCU 424	0	0.00	1.78	1.78	1.78
Within Portage VCU 442	0	2.93	0.00	3.11	3.11

¹ Unbuffered streams are Class II streams not directly feeding into Class I streams and Class III water quality streams affected by proposed harvest and road activities where AHMU prescriptions will be applied.

Wildlife Habitat

Table 2-12. Comparison of High Value Wildlife Habitat Acres Impacted by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Eagle Habitat Acres Harvested	0	0	5	5	5
Otter Habitat Acres Harvested	0	8	8	19	16
Bear Habitat Acres Harvested	0	281	699	1,210	1,119
Marten Habitat Acres Harvested	0	179	256	617	572
Deer Habitat Acres Harvested	0	236	211	597	551

Subsistence

Table 2-13. Possibility of a Significant Restriction of Subsistence Resources by Alternative (Excluding Deer) ¹

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Abundance/Distribution	No	No	No	No	No
Access	No	No	No	No	No
Competition	No	No	No	No	No

¹ "Yes" indicates that there may be a significant restriction and "No" indicates there is no significant possibility of a significant restriction.

Table 2-14. Possibility of a Significant Restriction of Deer for Subsistence Users by Alternative in the Year 1993.¹

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Abundance/Distribution	No *	Yes	No *	Yes	Yes
Access	No	No	No	No	No
Competition	No	No	No	No	No

¹ "Yes" indicates there may be a significant restriction and "No" indicates there is no significant possibility of a significant restriction.

* Alternative 1 and Alternative 4 are shown as NO because they do not affect VCU 424 (WAA 5136) and do not reduce the habitat capability in WAA 5136 beyond its existing level. They also do not change the habitat capability/demand relationship. The data suggests that demand for deer has exceeded habitat capability even back in 1960 in this WAA.

2 Alternatives

Table 2-15. Possibility of a Significant Restriction of Deer for Subsistence Users by Alternative by the Year 2040.¹

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Abundance/Distribution	Yes*	Yes	Yes*	Yes	Yes
Access	No	No	No	No	No
Competition	No	No	No	No	No

¹ "Yes" indicates there may be a significant restriction and "No" indicates there is no significant possibility of a significant restriction.

* Alternative 1 and Alternative 4 are shown as YES because, even though they do not affect VCU 424 and do not reduce the habitat capability in WAA 5136 beyond its existing level, estimated future demand in WAA 5135 is expected to exceed modeled habitat capability.

Monitoring

This section replaces the Monitoring section in Chapter 2 of the 1993 FSEIS.

Monitoring programs are designed to determine if the resource management objectives of the timber sale were met. Monitoring is the process of measuring how well the predictions made, the prescriptions assigned, and the determinations decided, achieve the desired results as implemented. The objective of monitoring and evaluating project implementation is to determine (1) if all activities undertaken as part of this project are consistent with the Forest Plan and the Record of Decision for this project, (2) effectiveness of standards and guidelines, (3) costs and effects of project implementation, and (4) need for changes to the decision.

All action items are subject to monitoring and reporting requirements contained in the Forest Plan and Forest Service Manuals and Handbooks including the Stikine Area's Effectiveness Monitoring Strategy, 1994 and the Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest, EPA Region 10, May 1991.

The Forest Service uses three classifications of monitoring activities: implementation monitoring, effectiveness monitoring, and validation monitoring. A description of these three types is given below. Specific monitoring items for this project are described on the following pages. Some monitoring items, like research efforts to validate models (such as habitat capability models used in this planning process), and program reviews (such as reviews conducted on a regular basis to assess the quality of engineering work) are not specific to this project and so are not listed. They still constitute an important form of monitoring and may include looking at various aspects of this project.

Implementation Monitoring

Implementation monitoring assesses whether the project was implemented as designed and whether or not it complies with the standards and guidelines. Planning for implementation monitoring began with the design of this timber

sale. Specialists used on-the-ground inventories, computer inventories, and aerial photographs to prepare documents called unit cards for each harvest unit in the timber sale. Road cards were also prepared for each segment of road. These documents (unit and road cards) will be the basis for determining whether these recommendations were implemented for this timber sale. Implementation monitoring is conducted as part of the administration of a timber sale contract. Sale administrators and road inspectors ensure that the prescriptions contained on the unit and road cards are implemented.

Effectiveness Monitoring

Effectiveness monitoring measures the effectiveness of design features or mitigation measures. Monitoring records will be kept in the project implementation file. The results of this monitoring will be evaluated and compared to expected results at least annually during the life of this project. This kind of monitoring can provide information that may trigger some form of corrective action and also provide valuable feedback for resource specialists and line officers.

Validation Monitoring

Validation monitoring is conducted to determine if management actions are resolving important issues. The objective of validation monitoring is to determine if we are achieving what we set out to achieve. Normally, validation monitoring is conducted to determine if initial assumptions used to develop alternatives and estimate effects are correct. In some cases it includes cooperative studies with research to test and evaluate predictive models such as wildlife habitat relationships or watershed impacts. Validation monitoring is usually conducted at the Forest Plan level.

Responsible Staff

The Petersburg District Ranger is responsible for implementation of all monitoring activities for this project.

Specific Monitoring Items for the Bohemia Mountain Timber Sale

BMP Implementation:

Implementation Monitoring:

- Objective: Insure compliance with Best Management Practices (BMPs) as per FSH 2509.22
- Desired Result: To minimize the adverse impacts of management activities on soil and water resources.
- Measurement: Visual observation of 10% random samples of units and road segments done once, the same season the activity is completed.

Marine Environment - Bark accumulation:

Effectiveness Monitoring: Compliance with Log transfer Facility permits.

- Objective: Determine size of area affected by bark deposition as required by permit for Little Hamilton Island Log Transfer Facility (LTF) and the Portage Bay LTF.
- Desired Result: Minimum impacts on marine environment.
- Measurement: Diving and sampling transects as required by permit.

2 Alternatives

Visual Quality Objectives:

Effectiveness Monitoring:

- Objective: To determine if specific harvest unit designs were effective in meeting visual quality objectives as seen from Frederick Sound, Portage Bay and Bohemia Lake.
- Desired Result: To meet the desired visual objective.
- Measurement: Actual field checking of change in the landscape; done once, using video and still photography, immediately following harvest. Compare computer simulations of proposed harvest to resulting visual condition.

Soil Productivity:

Effectiveness Monitoring: Mitigation effectiveness and quality assurance.

- Objective: To determine compliance with R-10 Soil Quality Standards to insure no long-term decrease in soil productivity has occurred.
- Desired Result: No loss in soil productivity.
- Measurement: Done once; as soon as possible after yarding, 10% of the units will be measured by standard transect procedures known as soil disturbance transects.

Timber - Restocking of Harvested Stands:

Effectiveness Monitoring: Compliance with Forest Plan.

- Objective: Determine if stocking density of at least 300 trees per acre, uniformly distributed over the site has been achieved within five years of harvest.
- Desired Result: Adequate restocked timber stands.
- Measurement: Stocking surveys within the first five years.

Eagle Nests Adjacent to Unit 522:

Effectiveness Monitoring: Issue Resolution

- Objective: To determine if logging traffic on the existing road (Road number 6319) is affecting eagle nesting.
- Desired Result: No disturbance during nesting.
- Measurement: In compliance with the USF&W variance to the Bald Eagle Interagency Agreement, visual observations of nest sites during the early nesting period (April and May) to determine use will be done. If the nests are used; another visual observation in July and August will be conducted to determine if they are successful in producing young. These observations to be conducted annually, for the life of the timber sale, up to six years.

Black Bear Timing - Units 535, 536, and 537.

Implementation Monitoring: Issue Resolution

- Objective: To mitigate disturbance to Black bear using the Portage Creek riparian area by implementing the following timing restriction: At least one week should separate timber harvest activities (cutting and yarding) on either side of Portage Bay Creek.

Desired Result: Minimal disturbance to Black bear.
Measurement: Actual field checking during harvest activities and a report for the implementation file.

Residual Trees (Within Units)

Effectiveness Monitoring:

Objective: Determine the effectiveness of different leave tree configurations in maintaining windfirm trees.
Desired Result: Trees selected for retention remain standing.
Measurement: Document the number of residual trees that remain standing at one, five and 10 years following harvest.

Chapter 3

Affected Environment

Chapter 3

Affected Environment

Introduction

This chapter describes the environment of the Bohemia Mountain analysis area. The information has been taken from more detailed resource reports that are available for public review in the planning record. The planning record is located at the Stikine Area Supervisor's office in Petersburg, Alaska.

Included in this supplement are only the environments that are not described in or have changed since publication of the 1993 FSEIS.

Wetlands

The following replaces the discussion on wetlands in the 1993 FSEIS, Chapter 3, pages 7-8.

Wetlands are defined as: "those areas that are inundated or saturated by surface or ground water with a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (40CFR 230.41(a)(1)). Identification of wetlands is based on the Corps of Engineers three-parameter system described in U.S. Army Corps of Engineers Wetlands Delineation Manual (COE 1987). Wetlands are identified as areas having hydric soils, hydrophytic vegetation, and wetland hydrology. Soil resource inventory maps, including correlations between soil series and plant communities were used to determine the extent of wetlands in the Bohemia study area. Hydrologic parameters were inferred from the soil moisture regime.

Using this wetland definition and delineation method, approximately 70 percent (47,616 acres) of the Bohemia study area is classified as wetland. These extensive wetlands are not all alike but consist of at least six different types of wetlands (Table 3-1). Each wetland type has different soil and vegetative communities, occupies different landscape positions, and has somewhat different functions and values. Map 3-1 shows the location and extent of these wetland types within the Bohemia area.

Table 3-1 Distribution of Wetland Types in the Analysis Area

Wetland Type	Area (acres)	Percent of Analysis Area
Forested Wetland	30,030	44%
Bog (Muskeg)	16,171	24%
Subalpine Wetlands	1,043	2%
Fens	107	<1%
Salt Marshes	41	<1%
Lakes and Ponds	244	<1%
Total	47,616	70%

Forested Wetlands

Forested wetlands, as used here, consist primarily of coniferous treed slope bogs, some of which occur in an intricate mosaic pattern with small open bogs. Forested wetlands are plentiful throughout the area and represent about 44 percent of the Bohemia study area. Tree cover ranges from a minimum of 10 percent to about 60 percent canopy cover of trees at least 25 feet tall. Plant communities consist primarily of Mixed Conifer/Blueberry/Skunk Cabbage, Mixed Conifer/Blueberry/Deer Cabbage, Western Hemlock/Blueberry/Skunk Cabbage, Shore Pine/Blueberry, and some Sitka Spruce/Blueberry/Skunk Cabbage, and Mountain Hemlock/Blueberry/Skunk Cabbage. Soils are primarily very poorly drained organic soils or poorly and very poorly drained mineral soils. Included in this forested wetland is a small area of floodplain swamp associated with the fen on the east side of Bohemia mountain.

Bogs

Bogs (locally called muskegs) consist of open peatlands that are dominated by sphagnum moss vegetation. Bogs are found scattered throughout the area but are most common at elevations below 500 feet. About 24 percent of the study area is bog. Less than 10 percent of the area is covered with trees more than 25 feet tall, mostly stunted shore pine with lesser amounts of western hemlock, mountain hemlock, yellow cedar and Sitka spruce. Common shrubs include Labrador tea, crowberry, mountain cranberry, dwarf blueberry, bog laurel, and bog cranberry. Soils are very poorly drained, moderately-deep to deep, extremely acid peatland soils.

Fens

Fens are open (non-forest) sloping wetlands dominated by sedges. Less than 10 percent of the area is covered with trees more than 25 feet tall, mostly Sitka spruce with lesser amounts of western and mountain hemlock and Alaska yellow cedar. Unlike bogs, fens do not usually contain shore pine. A few Oregon crab apple and highbush cranberry are common on the margin of these fens. Soils are poorly and very poorly drained, moderately-deep to deep organic soils. Soil and water in fens typically are less acid and have a higher nutrient content than bogs. These organic soils typically contain some mineral soil material as thin strata of alluvium. Fens are relatively rare on the Bohemia area.

They occupy about 107 acres, or less than one percent of the area. Most of these fens are in one area on the east toe slope of Bohemia Mountain at the headwaters of ADF&G stream no. 110-16-006, stream #7 Map 3-1.

As opposed to bogs, which get most of their water as rainfall, fens receive nutrient-enriched ground water from adjacent uplands. Nutrient status is appreciably higher than bogs, which makes for very diverse plant communities. Nutrient-enriched water supplied to aquatic systems from fens and adjacent upland ecosystems is important to maintain the productivity of the aquatic food chain.

Subalpine Wetlands

Subalpine wetlands are primarily high elevation (1800 to 2300 feet) bogs that occupy the sloping to steep summit of Bohemia Mountain and to lesser extent subalpine slopes of the Missionary Range on the east side of Portage Bay. Vegetation is dominantly sphagnum moss, low sedges and deer cabbage. Trees include widely scattered stunted mountain hemlock, yellow cedar and less frequently, shore pine. Shrubs include some alpine species, typically yellow mountain heather, Mertin's cassiope, luetkea and copperbush. Soils are typically poorly and very poorly drained shallow organic soils over bedrock. These areas accumulate a heavy winter snow pack and provide a source of runoff as melt water during spring and early summer.

Salt Marshes

Salt marsh wetlands occupy the estuary areas in Portage Bay, and to a lesser extent, the mouth of Big Creek. These intertidal areas contain a variety of salt-tolerant sedge communities arranged according to subtle differences in elevation and corresponding frequency of salt water inundation. The higher, less frequently inundated areas typically contain highly diverse grass/sedge/forb communities with Oregon crab apple and alder trees scattered along their upper margins. Salt marshes have poorly drained mineral soils that have appreciably higher pH values and nutrient contents than other wetland types. These estuarine areas, although they are not abundant (only 41 acres, or less than one percent of the area), provide very important habitat to a wide variety of wildlife. The Portage Bay estuary also contains extensive area of unvegetated mud flats not included in acreage calculations in Table 3-1.

Lakes and Ponds

These are freshwater lakes and small ponds, most of which are surrounded by other wetlands. These small open water areas often enhance the habitat value of adjacent wetlands as well as upland ecosystems and also provide enhanced diversity on a landscape scale.

Wetland Functions and Values

Functions attributable to wetland ecosystem can be organized as follows:

Physical functions: flood conveyance, water retention and regulation, heat absorption, and sediment collection and storage.

Chemical functions: ability to accumulate significant carbon and nutrients (nitrogen).

Biological functions: provide biological diversity, produce timber (generally in lower volume classes), provide habitat for fish (salmon) and wildlife (waterfowl and bears), and provide smaller animals as part of the food web.

Values are socio-economic benefits derived from wetland functions. These include wildlife viewing and harvest, commercial fishing (salmon habitat provided by estuaries, streams and lakes), development sites (for example, buildings

and roads), community water supplies, actual and potential recreation, and timber harvesting.

The biological significance of a wetland is related to the value of its functions, and at least in part to the relative scarcity of the wetland type in the landscape. This is especially true in terms of biological diversity on the landscape scale. The relatively scarce fens and estuarine salt marshes in the Bohemia area have a greater biological significance than the more common bogs and forested wetlands which are widespread throughout the landscape.

Threatened, Endangered, Sensitive and Candidate Species

There have been changes to the threatened, endangered, sensitive, and candidate species lists since the printing of the 1993 FSEIS. The Queen Charlotte goshawk and several plant species have been added to the sensitive species list. The Alexander Archipelago wolf, the Kittlitz murrelet, and the olive-sided flycatcher have been added to the category II candidate species list. The arctic peregrine falcon has been delisted and no longer needs to be addressed. While the spectacled eider has been upgraded to threatened status, and the Steller's eider has been proposed for threatened status, the U.S. Fish and Wildlife Service no longer requires the USFS to address either eider species in southeast Alaska (John Lindell, Personal Communication).

Sensitive Species

In January 1994, the Alaska Region of the USDA Forest Service released a sensitive species list that included 9 animal species and 22 plant species. Biological evaluations for sensitive species are contained in the planning record. *This list changes the description of existing conditions in the 1993 FSEIS.*

Common Name

Montague Island tundra vole
Trumpeter swan
Dusky Canada goose
Queen Charlotte goshawk
Osprey
Peale's peregrine falcon
Northern pike
Fish Creek chum salmon
King Salmon River and Wheeler Creek king salmon

Animal Species (vertebrates): Of the nine vertebrate species listed as sensitive, only the Queen Charlotte goshawk has been sighted within the study area.

Goshawk

The following discussion is an addition to the Sensitive Species section found on page 18, Chapter, 1993 FSEIS.

The goshawk, a large forest-dwelling raptor, is a year-round resident of the Petersburg Ranger District. The literature on goshawks suggests that there are two subspecies in southeast Alaska: *Accipiter gentilis atricapillus*, which occupies much of North America, and *Accipiter gentilis laingi*, the Queen Charlotte goshawk, which is found in southeast Alaska and coastal British Columbia. The Queen Charlotte subspecies is thought to grade into the *A. g. atricapillus* subspecies on Vancouver Island and perhaps in northern southeast Alaska. Goshawks forage within home ranges that are typically 6,000 to 8,000

acres in the southwestern United States (Crocker-Bedford 1991). Recent studies within southeast Alaska suggest larger home ranges (Titus et al 1994). Studies are currently being conducted and data are being collected. Since the studies are not completed and our understanding of goshawk habitat requirements is not sufficient, the effects of the proposed sale activities on the goshawk are not known.

Candidate Species

Candidate species are those being considered for listing as threatened or endangered by the U.S. Fish and Wildlife Service or National Marine Fisheries.

The following are additions to the Candidate Species described in the 1993 FSEIS, Chapter 3, page 18-19.

Alexander Archipelago Wolf

The wolf (*Canis lupus*) was once widely distributed throughout North America, but today is restricted to the more remote and undeveloped portions of its original range. Two subspecies of wolves are recognized to occur within Alaska, one of which is the Alexander Archipelago Wolf (*C. l. lingoni*). This subspecies is currently a candidate species (category II) being considered for listing as a threatened or endangered species by the U. S. Fish and Wildlife Service. The range of the subspecies includes the islands south of Frederick Sound and the narrow mainland strip of land west of the Coast Mountains, from Dixon Entrance to Yakutat Bay (Hall 1981).

Wolves are most abundant in the southern panhandle, less abundant on the islands further north (Kuiu, Mitkof, Wrangell, and Kupreanof Islands), and least abundant on the mainland (Kirchhoff 1991). The wolf population in southeast Alaska is currently estimated at 635-690 individuals (Kirchhoff 1991).

In southeast Alaska, the primary prey are Sitka black-tailed deer, mountain goats, and moose. Wolves are present within the Bohemia Mountain Study Area and their major prey are Sitka black-tailed deer and moose.

Kirchhoff (1991) has listed three factors which may lead to wolf population declines in the next century.

- An expanding road system and increasing human population which will increase wolf mortality by increased shooting and trapping.
- Clearcut logging which reduces the habitat capability for Sitka black-tailed deer.
- Inbreeding which may reduce fitness.

Kittlitz Murrelet

This murrelet has recently been added as a category II species (see 1993 FSEIS, Chapter 3, Page 18, Candidate Species). Information on the Kittlitz murrelet within the Petersburg Ranger District is rather limited. Kittlitz murrelet are locally very rare with observations occurring at Thomas Bay and historical records of occurrence at LeConte Bay (Walsh, Personal Communication). In southeast Alaska, this murrelet is uncommon, with a center of distribution located at Glacier Bay, Alaska. Kittlitz murrelets nest on bare rock, some distance from the sea, primarily high, near the tops of mountains (Harrison 1987). The Kittlitz murrelet is not known to occur within the study area.

Olive-sided Flycatcher

This flycatcher has recently been added as a category II species. The species ranges roughly from interior Alaska to Baja California, through the Rocky Mountain States and east through Canada and the New England States. Information on the olive-sided flycatcher within the Petersburg Ranger District is rather limited, but locally it is considered an uncommon breeder and a rare

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migrant (Walsh, personal communication). Information gathered by Walsh suggests the population is stable on Mitkof Island. We believe this is true for other areas on the district. This flycatcher utilizes semi-open areas and forest edge habitat such as beaver ponds and young managed stands (Walsh, personal communication and Blatt, personal observation).

Plants

This section is an addition to Chapter 3, Threatened, Endangered, Sensitive, and Candidate Species, 1993 FSEIS.

Sensitive Plants

In January, 1994, an updated Regional Forester's sensitive species list was released for Region 10. No species of plants were listed as Threatened or Endangered. The list did contain 22 species, subspecies, or varieties of Sensitive Plants.

Plant Species: The following plant species have been identified as sensitive. Of them, one species (Choris bog orchid) is known to occur and nine species are suspected of occurring in the Bohemia Study Area, based on habitats found in the area. The 10 are indicated by an asterisk(*).

Common Name	Scientific Name
*Edible thistle	Cirsium edule
*Bog orchid	Platanthera gracilis
*Northern rockcress	Draba borealis var. maxima
*Calder lovage	Ligusticum calderi
*Davy mannagrass	Glyceria leptostachya
*Wright filmy fern	Hymenophyllum wrightii
*Straight-beak buttercup	Ranunculus orthorhynchus var. alaschensis
*Choris bog orchid	Platanthera chorisiana
*Circumpolar starwort	Stellaria ruscifolia ssp. aleutica
*Loose-flowered blue-grass (no common name)	Poa laxiflora Aphragmus eschscholtzianus
Kamchatka rockcress	Draba kamtschatica
Smooth alkali grass	Puccinellia glabra
Kamchatka alkali grass	Puccinellia kamtschatica
Tundra whitlow-grass	Draba kananaskis
Goose-grass sedge	Carex lenticularis var. dolia
Norberg arnica	Arnica lessingii ssp. norbergii
Unalaska mist-maid	Romanzoffia unalaschcensis
Pale Poppy	Papaver alboroseum
Queen Charlotte butterweed	Senecio moresbiensis
Truncate quillwort	Isoetes truncata
Pretty shooting star	Dodecatheon pulchellum ssp. alaskanum

These plants may occur on one or several habitats. Five habitats are listed as potential sites for Sensitive Plants in the Bohemia Study Area. Table 3-2 lists habitats present and Sensitive Plants that may be supported by each.

The one sensitive plant found in the study area, Choris bog orchid, is associated with wet areas dominated by sphagnum. All but one plant was found in this habitat. These areas were generally open with little or no tree cover. Some sites were small open inclusions with noncommercial Mixed Conifer/Mountain Cranberry/Deer Cabbage plant associations. Plants most frequently associated

Table 3-2. Sensitive Plants Known or Suspected to Occur on the Petersburg Ranger District on Habitats Affected by the Bohemia Mountain Timber Sale

Habitat	Plant Taxa
Forest Edge	Edible thistle Wright filmy fern Calder lovage
Forest	Wright filmy fern
Open Forest	Northern rockcress Loose-flowered bluegrass
Stream-sides and River Banks	Edible thistle Davy mannagrass Straight-beak buttercup Circumpolar starwort
Muskegs	Choris bog orchid Bog orchid

with the orchid were: sphagnum, skunk cabbage, fern-leaf goldthread, bunchberry, deer berry, deer cabbage, mountain cranberry, swamp gentian, and arctic starflower. Other bog species were present but were less consistent in their occurrence.

Candidate Species

Two plants are listed as candidate species:

- Goose-grass sedge (Also listed as a sensitive species)
 - Slim stem reed grass
- Neither are found on habitats within the study area.

Recreation

The following is added to the discussion on recreation in the 1993 FSEIS, Chapter 3, pages 26-29:

Added to the two primary developed sites identified in the 1993 FSEIS for the study area is the West Point Public Recreation Cabin, constructed during 1994. (The other two sites are the Portage Cabin and the Portage Mountain Loop Trail.)

The West Point Cabin sleeps seven people and is equipped with an oil stove. It is a modified A-frame design cabin that meets universal accessibility standards. The cabin site includes a salt water access ramp, a boardwalk/deck network, and a universally accessible toilet. The cabin is in a Semi-primitive Motorized ROS setting.

The Petersburg Recreation Plan and Regional Capital Investment Program identified the Portage Bay Cabin as due for replacement and/or relocation due to several factors (see 1993 FSEIS, Chapter 3, page 27, "The Portage Bay Cabin"). The West Point Cabin is the replacement for the Portage Bay Cabin.

TLMP designated the land area at West Point as LUD IV. Most of the landscape seen from this site is designated LUD IV or LUD III. In planning for this cabin, it was acknowledged that timber harvest was expected to change the views or noise levels experienced by cabin users (see Portage Bay Public Recreation Cabin EA, 1993).



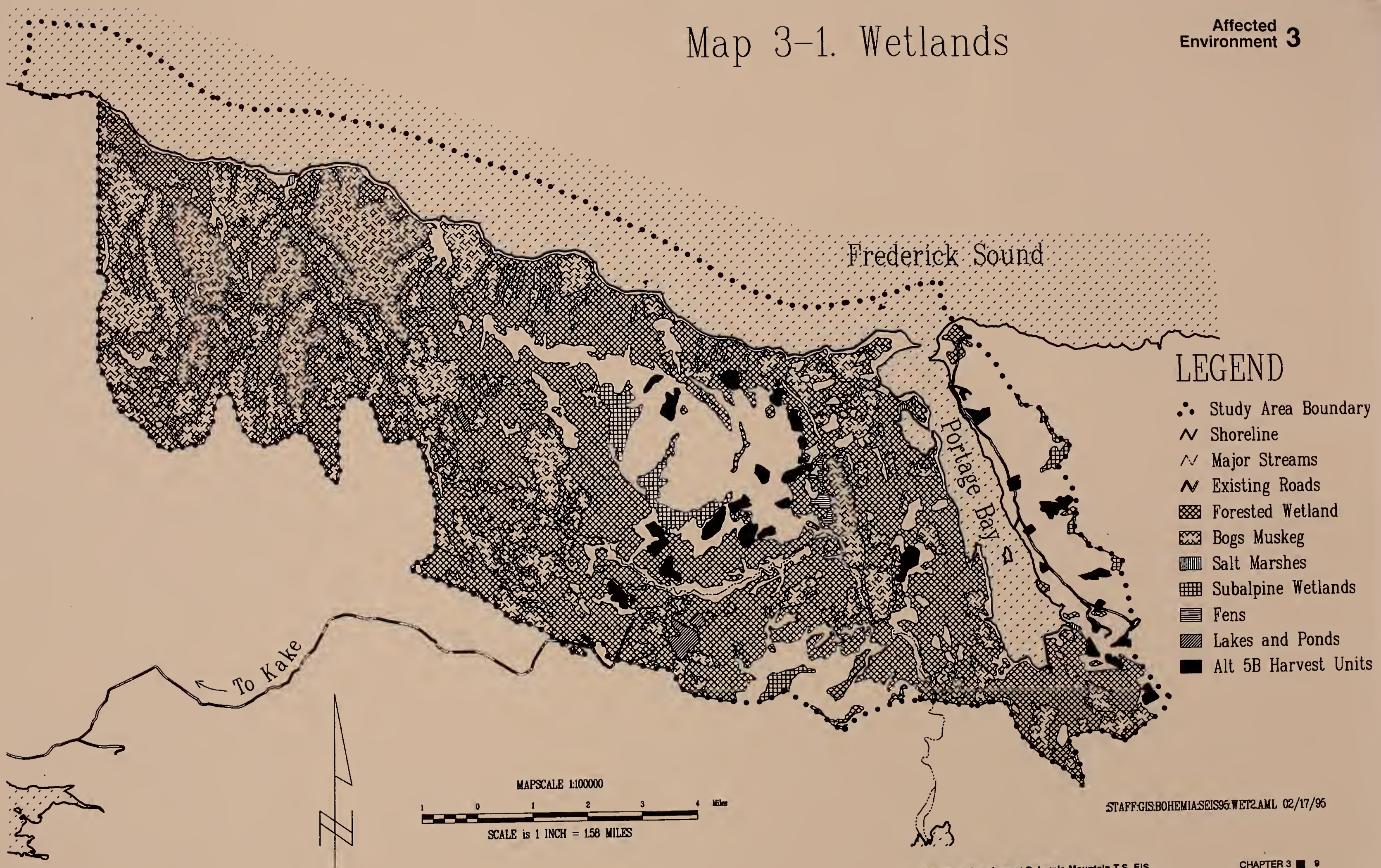
LEGEND

- ⋯ Study Area Boundary
- ~ Shoreline
- ~ Major Streams
- ~ Existing Roads
- ▨ Forested Wetland
- ▧ Bogs Muskeg
- ▩ Salt Marshes
- Subalpine Wetlands
- ▬ Fens
- ▩ Lakes and Ponds
- Alt 5B Harvest Units

STAFF:GIS:BOHEMIA:SEIS95:WET2.AML 02/17/95

Map 3-1. Wetlands

Affected
Environment **3**



Chapter 4

Environmental Consequences

Chapter 4

Environmental Consequences

This chapter describes the physical, biological, economic, and social effects likely to result from implementing each of the alternatives. A summary of the consequences of each alternative is displayed in Tables 2-1 through 2-13 in Chapter 2. This information has been taken from more detailed reports that are available for public review in the planning record.

The impacts of the proposed modifications are addressed for each issue. The issues are presented in the same order as they occur in the 1993 FSEIS. *The analysis and discussion for each issue is limited to the effects of the modifications presented in this document and do not comprise a complete reanalysis of each issue.*

Watershed

Road length and stream crossings were the only parts of the watersheds affected by the the realignment of road 6031 in alternative 5B. *The following sections replace those in the 1993 FSEIS, Chapter 4, pages 4 and 6.*

Roads and Stream Crossings

The realignment of Road 6031 crosses two more narrow width channels than the original alignment. Alternative 5B would require the most new construction of specified and spur roads (33.2 miles), followed in descending order by Alternative 6 (29.3) miles, Alternative 4A (25) miles and Alternative 3 (1.1 miles). The number of road crossings over all inventoried streams for the action alternatives (in decreasing order) are Alternative 5B (37); Alternative 6 (36); Alternative 4A (31) and Alternative 3 (3).

Cumulative Effects of Roads and Stream Crossings

Cumulative lengths of roads within watersheds would include proposed new specified and spur road construction as well as previously constructed specified roads. The greatest cumulative length of these roads would occur in Alternative 5B (61.3 miles), followed in descending order by Alternative 6 (57.8 miles), Alternative 4A (53.1 miles) and Alternative 3 (29.6 miles). The "no action" alternative would maintain the existing specified road length of 28.1 miles. The number of past and proposed road crossings over all inventoried streams for the action alternatives follows (in decreasing order): Alt. 5B (61); Alt. 6 (60); Alt. 4A (55); Alt. 3 (27); and Alt. 1 (24).

Wetlands

The following replaces the discussion on wetlands in the 1993 FSEIS, Chapter 4, pages 9 - 10.

Executive Order 11990, as amended, requires Federal agencies exercising statutory authority and leadership over Federal lands to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands. Federal agencies are required to preserve and enhance the natural and beneficial values of wetlands in carrying out their responsibilities for: 1) acquiring, managing, and disposing of lands and facilities; 2) providing federally undertaken, financed, or assisted construction and improvements; and 3) conducting Federal activities and programs affecting land use.

Because wetlands are so extensive in the Bohemia area it is not feasible to avoid wetland areas. It is possible, however, to avoid development activities on the most biologically significant wetlands. Roads and timber harvest in all alternatives avoid these areas. There will be no direct effects to the fens, estuarine salt marshes, subalpine wetlands, lakes and small ponds in any alternative.

In all alternatives, roads were located to avoid the fen on the east toe slope of Bohemia Mountain. No roads or other facilities will be constructed in or adjacent to salt marshes. No timber will be harvested within 1000 feet of these wetlands. No activities are planned in subalpine wetlands nor within 200 feet of any lake or pond. The wetland types that will be directly affected by roads and/or timber harvest are the more extensive, less biologically significant bogs and forested wetlands.

Roads and Wetlands

Wetland vegetation, soil drainage, and the hydric character of a wetland is permanently altered by road construction for the width of the road fill itself. This is approximately 24 feet wide and equates to approximately 2.9 acres per mile of road. Road construction on wetlands will be limited to the needed transportation components of roads, landings, and associated drainage structures necessary for timber harvest operations and resource protection. Appropriate BMPs and mitigation measures are incorporated into road designs to minimize effects on water quality and maintain wetland functions. Rock overlay construction on wetlands provides a highly permeable fill that, along with adequate cross drain culverts, minimizes changes in hydrologic conditions. The amount of change in surface or subsurface water flow within a bog due to road construction has not been measured but is expected to be very small.

Subtle changes in wetland vegetation associated with roads have been observed on similar soils of Kupreanof and Mitkof Islands. A small increase in vigor and growth of some species such as shore pine, spruce, and sedges and a decrease in the abundance of some mosses have been observed in a few scattered locations adjacent to roads within muskegs. These changes are limited to a short distance (50 to 75 feet) on the downslope side of the road and are thought to result from the slight dewatering effect of road drainage. Ditch construction on open muskeg bogs in the Bohemia area will be minimized to the extent required to avoiding waterlogging the road prism.

Timber Harvest and Wetlands

Timber harvest is expected to have minimal long-term effects upon the physical, chemical and biological functions of wetlands. Removal of the forest overstory may temporarily change the hydrology of the site. Increased snow accumulation and a slight increase in soil moisture is expected until vegetation is established. The plant community will, of course, be changed from a mature old-growth stand to a young even-aged stand. Plant species composition will not be appreciably altered; however, community structure and understory biomass will change during secondary succession following logging (Alaback 1982).

Timber site productivity on wetland soils is typically lower than on better drained soils. Growth rates on wetland sites are expected to be slower than non-wetland sites, and merchantable timber may not be available in a 100-year rotation. Based on investigations of 25- to 35-year-old second-growth stands on wetland sites on Kupreanof Island, all were adequately stocked with hemlock and spruce. Measured growth rates, however, are very slow on these excessively wet sites.

The amount of timber harvest on forested wetlands is displayed in table 4-1. The amount of road building on bogs and forested wetlands is displayed in Table 4-2.

Table 4-1. Timber Harvest on Forested Wetlands (acres)

Exlstng	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
26	0	1	234	250	244

Table 4-2. Roads on Bogs and Forested Wetlands (miles)

Exlstng	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
0	0	0	13.5	17.3	14.3

Wildlife

There is the potential for short-term noise disturbance of wildlife residing in Portage Bay as a result of the realignment of road 6031. No additional impacts to wildlife are anticipated.

Sensitive Species

Currently nine vertebrate species are listed as sensitive. Of these, only the trumpeter swan, osprey, Queen Charlotte goshawk, and the Peale's peregrine falcon are known or are expected to occur within the Stikine Area. Of these four, only the goshawk has been sighted within the study area.

Trumpeter swans, osprey, and Peale's peregrine falcon have not been found within the study area, so this timber sale should not have any direct, indirect, or cumulative effects on them.

Goshawk

Currently no nests have been located within the study area. Goshawk surveys have been conducted within the study area, along the existing roads and within each harvest unit proposed by the alternatives for the timber sale. Goshawk surveys have also been conducted outside of the study area, along the existing roads within VCU 443 and 444. Surveys were conducted in 1993 and 1994, with 119 and 316 calling stations being completed, respectively.

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One adult goshawk was observed in late August of 1992 near unit 538. Surveys have been conducted within the area without locating a nest. The adult goshawks, especially females, are known to disperse from their nesting area after breeding season. This observation may have been a dispersing goshawk, a non-breeder, or a goshawk which was foraging far from the nest site.

A juvenile goshawk was observed within the muskegs west of unit 541 in August 1994, during the time when the juveniles have fledged from the nest. Juveniles are known to move great distances from the nest, some as far as 50 miles. It can not be concluded that this bird's nest is within the study area.

During May 1995, an adult goshawk was observed within unit 523. The bird was observed perched in a tree; then it flew west toward Portage Bay. Defensive nesting behavior was not observed.

All three of the above sighting areas have been revisited after the initial sightings. There was no indication of the presence of goshawk in any of these areas.

Table 4-3 displays the effects of past activities and each of the alternatives on specified volume classes within the study area. Current data suggests that goshawks use timbered areas containing greater than 8,000 board feet/acre (Volume class 4+) a majority of the time, with a disproportionately greater amount of use in 20,000 board feet/acre or greater (Volume class 5+) timbered stands. Past activities have removed 1 and 2 percent of the volume class 4+ and 5+, respectively (Alternative 1). The greatest impacts would occur with implementation of alternatives 5B and 6, removing 7 and 10 percent of the volume class 4+ and 5+ from the original condition, respectively.

This timber sale along with the past cumulative actions may reduce goshawk habitat. We do not have sufficient data at this time to determine how a reduction of 10 percent (Alternative 5B and 6) of the volume class 5+ stands within the study area would affect goshawks. Goshawks are known to successfully nest within areas where moderate levels of timber harvest have occurred, such as Rowan Creek on Kuiu Island.

In summary, no nests or probable nests have been identified within the study area, options are available for the implementation of a viability strategy (1993 FSEIS, Chapter 4, Pages 19-20), and the maximum impact to volume class 5+ habitat would be a 10 percent reduction from the original condition. Thus, this sale may affect individual goshawks but is not likely to cause a trend to federal listing or a loss of viability on the Tongass National Forest.

Table 4-3. Remaining CFL Acres and Percentages for the Original Condition and After Alternative Implementation.

Volume Class	Original Condition	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
4+	26222 (100)	25840 (99)	25501 (97)	25013 (95)	24459 (93)	24494 (93)
5+	14213 (100)	13585 (99)	13526 (95)	13280 (93)	12756 (90)	12771 (90)

Candidate Species

The following are additions to the Candidate Species described in the 1993 FSEIS, Chapter 4, page 21.

Alexander Archipelago Wolf

For estimating the habitat capability for wolves within the study area, we used the wolf habitat capability model developed for the Tongass Land Management Plan revision (Suring and DeGayner 1988). The wolf model estimate is based on the prey species habitat capability. For the wolf habitat capability model, we

used estimates for the Sitka black-tailed deer (1993 FSEIS, Chapter 14, Page 15, Table 4-12) and an estimate of 1 moose per square mile for the study area (a moose model does not exist for the Tongass NF). The estimate of 1 moose per square mile was held constant for all alternatives, though we expect to see a slight increase in the moose population in the area with additional timber harvest. This increase may only occur for approximately 20 years, since canopy closure of the harvested stands will reduce forage for moose.

Within the Study Area (VCUs 442 and 424) the habitat capability is estimated to have been 5.01 wolves before 1954 and to be 4.85 wolves currently. The largest reduction from the original condition (1954) would be 0.3 wolves for alternative 5B. Since the deer population is not at carrying capacity (i.e. the habitat capability numbers), we do not believe that the wolf population is at habitat capability. Based on deer pellet counts within VCU 442, the wolf population may presently be approximately ½ of the habitat capability value.

Table 4-4 displays the habitat capability for wolves after implementation of alternatives.

Table 4-4 Habitat Capability (Number of Wolves) for Wolves within the Study Area.

VCU	Alt. 1	Alt 3	Alt. 4A	Alt. 5B	Alt. 6
424	3.57	3.57	3.50	3.49	3.50
442	1.28	1.24	1.28	1.22	1.22
Total	4.85	4.81	4.78	4.71	4.72

An interagency committee studying viable wildlife populations recommended the following standards and guidelines to maintain viable and well distributed populations of wolves (Suring et al 1994).

- * Where roads are joined to communities, road density within any 3 contiguous Wildlife Analysis Areas (WAAs) should not exceed 1.0 mile per square mile. Because the coastline provides similar waterborne access to these same wolves, the miles of skiff-accessible beach should be added to road miles when calculating "road density." Generally 10 percent of the total coastline may be considered accessible by skiff.

- * Habitat capability necessary to provide for equilibrium populations of predators and prey should be maintained wherever possible. As a general rule, where deer are the primary prey item for wolves, sufficient habitat capability to support at least 5 deer per square mile should be retained.

Road density was analyzed within the 3 WAAs (5135, 5136, and 5137) the study area entirely or partially overlaps (*Map 3-7, 1993 FSEIS, Chapter 3, page 14*). Currently there are approximately 43.25 miles of open road and 77 miles of coastal shoreline associated with the 3 WAAs. Kirchhoff (Suring et al 1994) used a factor of 10 percent for the coastal areas with dependable access for trapping. For the 3 WAAs, we assumed that 30 percent of the coast had dependable access, since areas along Frederick Sound would be exposed to harsh winter weather. The road density is currently 0.28 miles per square mile and would be as high as 0.40 miles per square mile if alternative 5B would be implemented. If all coastal miles were considered, the highest density would be 0.62 miles per square mile (alternative 5B). Both of these figures are far below the 1.0 mile per square mile maximum density suggested to maintain viable populations of wolves.

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Table 4-5 displays the road and accessible beach miles per square mile within the 3 WAAs.

Table 4-5 Density of Road and Accessible Coast within WAAs 5135, 5136, and 5137 by Alternative.*

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Density	0.28	0.28	0.38	0.40	0.39

* Miles per square mile

The deer habitat capability density within the study area will support at least 5 deer per square mile for any of the alternatives. The density will be reduced the most with the implementation of alternative 5B.

Table 4-6. Density of Deer Within the Study Area Based on Habitat Capability.*

VCU	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
424	11.33	11.33	11.07	11.03	11.07
442	22.78	21.93	22.78	21.59	21.59

* This is the number of deer per square mile at habitat capability.

Kittlitz Murrelet

Since the Kittlitz murrelet is not known to occur within the study area and seems to be associated with the coastal mountainous areas of the mainland, the sale is expected to have no impact on Kittlitz murrelets.

Olive-sided Flycatcher

Though information on this species is limited, we believe that the population of olive-sided flycatchers will remain stable or possibly increase within the study area. Most forested edge habitat associated with beaver ponds is protected by TTRA fish stream buffers, and harvesting of old-growth stands will produce additional forested edge habitat.

Subsistence

This Chapter 4 Subsistence section replaces the 1993 FSEIS Chapter 4 pages 22-33. This section is added to the 1995 FSEIS to better clarify the subsistence analysis.

This section evaluates the possibility of a significant restriction of subsistence use in the Bohemia Mountain Analysis Area.

ANILCA Section 810 Subsistence Evaluation

The Alaska National Interest Lands Conservation Act (ANILCA), Section 810, mandates that Federal agencies having jurisdiction over lands in Alaska evaluate the potential effects of proposed activities on subsistence uses and needs. Section 810 of ANILCA specifies:

"In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the agency having primary disposition over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be affected until the head of such federal agency:

1. gives notice to the appropriate state agency and appropriate local committees and regional councils established pursuant to ANILCA Section 805;
2. gives notice of, and holds, a hearing in the vicinity of the area involved; and
3. determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands; (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or disposition; and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such action."

Earlier information dealt with current and historical subsistence uses on north Kupreanof Island project area by the rural residents of the communities of Kake, Petersburg and Wrangell. This segment evaluates how the various project alternatives could affect subsistence uses by the above communities in the project area. Deer, wildlife, fish, other foods, and timber are the resources used for subsistence that are evaluated in this document.

Evaluation criteria used to assess the effects of the alternatives are: 1) changes in abundance or distribution of subsistence resources, 2) changes in access to subsistence resources, and 3) changes in competition from non-subsistence users for those resources. The evaluation determines whether subsistence uses within the analysis area or portions of the area may be significantly restricted by any of the proposed action alternatives. To determine this, the evaluation: 1) considers the availability of resources used for subsistence in the surrounding areas; 2) considers the cumulative impacts of past and foreseeable future activities on subsistence users and resources; 3) looks at potential cultural and socioeconomic implications affecting subsistence users; and 4) focuses on the mapped subsistence use areas by communities with documented subsistence use within the study area.

FSEIS Evaluation

The FSEIS Subsistence Evaluation for north Kupreanof Island focuses on the renewable natural resources found in the analysis area, and the rural communities that use the analysis area for subsistence purposes. The intent of the evaluation is to find out whether any proposed action "may" significantly restrict subsistence uses within the analysis area. The findings are based upon whether: 1) the proposed alternative would have a measured effect on subsistence users for each of the categories evaluated, 2) the foreseeable timber harvest schedule prescribed in the Supplement to the 1991 Draft EIS for the Tongass Land Management Plan Revision poses enough potential for affecting subsistence uses to substantiate a finding of "may" restrict subsistence use.

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FSEIS Findings

Using the information gathered from the Tongass Resource Use Cooperative Survey (TRUCS), comments from ANILCA 810 Subsistence Hearings, and other relevant cultural and socioeconomic sources, the Forest Service makes distinct findings by alternative and by resource category whether there may be a significant restriction of subsistence use. The resource categories evaluated are deer, wildlife, fish, other foods, and timber. Deer are evaluated separately because of their regional significance as a subsistence resource. As indicated earlier, the evaluation considers the effects by alternative on 1) abundance or distribution, 2) access, and 3) competition for each resource category.

Subsistence Use Area

All the VCUs in the north Kupreanof Island study area are used for subsistence. Specific areas within these VCUs have been identified as potentially more important for the harvesting of resources used for subsistence (see TRUCS - based Subsistence Use maps, Appendix D). Many of the proposed timber harvest units are within mapped subsistence use areas. Table 4-7 lists these harvest units by alternative. The location of the proposed units is considered in the Evaluation and the Findings.

Deer Effects and Evaluation

Abundance and Distribution of Deer

The evaluation of deer is based on a comparison of supply and demand. The habitat capability model for deer provides an estimate of the potential number of deer available for harvest within the project area over time. This equates to a supply available for subsistence use. This potential amount available for subsistence use can be compared with historical harvest data, or demand, for deer. If the demand for deer exceeds the supply, then a significant possibility of a restriction exists. Demand within the study area historically has been light compared to other use areas. Subsistence use has concentrated along beaches, estuaries, and riparian areas adjacent to salt water. Without road connections to the surrounding communities, demand on subsistence resources is not anticipated to change dramatically in the foreseeable future.

Table 4-7. Proposed Timber Harvest Units in Subsistence Use Areas.

	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
VCU 424 (In WAA 5135)	0	402,403,405 406,408,409 410,411,412 413,414,415 416,419,420 439	502,503,505 506,508,509 510,511,512 513,514,515 516,519,520 539,541	602,603,605 606,608,609 610,611,612 613,614,615 616,619,620 639
VCU 441.1 (In WAA 5137)	0	0	0	0
VCU 442 (In WAA 5136)	304,321,322 323,328,329 330,334,335	0	521,522,523 524,528,529 530,534,535	621,622,623, 624,628,629, 630,634,635,

It is assumed that communities with historical use of the study area for subsistence resources will continue to do so in the foreseeable future if the area remains open for deer hunting. Tables 4-8 and 4-9 display the number of deer needed to meet subsistence users needs from the years 1960 to 2040 in WAAs 5135 and 5136, respectively.

Table 4-8. The Number of Deer Needed To Meet Subsistence Needs from 1960-2040 In WAA 5135 (which includes VCU 424). ¹

Year	Number of Subsistence Deer Needed	Total Deer Population Needed to Supply Subsistence Harvest
1960	50	500
1970	59	590
1980	70	700
1990	82	820
2000	97	970
2010	114	1,140
2020	132	1,320
2030	151	1,510
2040	174	1,740

¹ Assumptions made and models used for Tables 4-8 and 4-9 are as follows:

- The Habitat Capability model for the years 1960, 1990, 2000, 2010, and 2040 is from the TLMP Revision, 1991, Alternative P. A linear relationship was assumed for the points in 2020 and 2040.
- Hunter Demand is from Strategic Management Plan for Deer, ADF&G, 1991. For decades 1990-2010 and 2010-2040, TLMP Revision assumed the population to increase 18% and 15% respectively per decade. Hunter demand was assumed to increase at the same rate.
- Minimum deer needed is assumed to be 10 times hunter demand, ADF&G, 1991.
- Assume hunter demand for 1960 was 100% subsistence.

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Table 4-9. The Number of Deer Needed To Meet Subsistence Needs from 1960-2040 In WAA 5136 (which includes VCU 442).

Year	Number of Subsistence Deer Needed	Total Deer Population Needed to Supply Subsistence Harvest
1960	131	1,310
1970	155	1,550
1980	182	1,820
1990	215	2,150
2000	254	2,540
2010	300	3,000
2020	345	3,450
2030	396	3,960
2040	456	4,560

Based on existing habitat capability estimates, the estimated demand for deer will exceed carrying capacity for WAA 5135 by the year 2005. The estimated demand currently exceeds supply in WAA 5136.

Habitat capability for deer is displayed in the 1993 FSEIS Wildlife section Chapter 3 and Chapter 4. Table 3-6 displays the habitat capability for deer within WAAs 5135 and 5136. WAA 5135's habitat capability for 1954 and 1993 is 1012 and 1010 deer, respectively. WAA 5136's habitat capability for 1954 and 1993 is 1176 and 1096 deer, respectively. Chapter 4, page 16 displays the effects of the alternatives on deer habitat capability for each WAA. The highest reduction in the 1993 deer habitat capability is 27 and 21 deer for WAAs 5135 and 5136, respectively. Alternative 4A does not harvest any timber within WAA 5136.

By comparing habitat capability with demand projections, the estimated demand for deer will exceed habitat capability for WAA 5135 by the year 2005. The estimated demand *currently* exceeds the habitat capability in WAA 5136. The data also suggests that demand exceeded the habitat capability even back in the 1960s in WAA 5136.

Table 4-9 displays the number of deer needed to supply subsistence harvest in 1960 as 1310 deer. As stated above the estimated deer habitat capability in 1954 for WAA 5136 was only 1176 deer. It is important to note that the actual deer populations are cyclic and can vary from the modelled habitat capability. Also, the actual hunter demand may differ from the projected demand.

Access to Deer

Access to historical subsistence use areas has not been affected by land use activities and is not expected to be affected by any of the action alternatives. Likewise, projected effects in the foreseeable future are not expected to change. This conclusion is based on the fact that traditional means of access (i.e., foot, boat, and float-plane) would remain the same.

The developed road system allows seasonal access to much of north Kupreanof Island. These existing and proposed roads will increase access to areas traditionally used for subsistence deer hunting. Presently, the only means of motor vehicle access to Portage Bay is by boat or barge. The Alaska Marine Highway System does serve Kake on a weekly basis, but Portage Bay is not connected to Kake by road at this time, and no alternative in this FSEIS makes that connection.

Competition for Deer

Subsistence and sport harvest of deer was allowed on Kupreanof Island beginning in the 1993-94 season. As this area has been closed since 1975, competition for deer is expected to increase somewhat in the near future.

All of the communities analyzed with historical subsistence use of deer within the study area have been determined rural by the Federal Subsistence Board. This qualifies them for subsistence harvest. The Federal Subsistence Board has the authority to restrict the subsistence and sport harvest of deer.

Deer Findings

Deer are an important subsistence resource utilized by all rural communities. The 1988 TRUCS Community Reports indicate that deer provide about 18 to 29 percent of the per-capita harvest in and around the analysis area. Proposed timber harvest units being considered within the various alternatives are located within areas documented as having been utilized for deer hunting during the last fifty or more years.

The projected effects to deer that would result from the harvest of these units are evaluated in the Chapter 4, Wildlife section of the 1993 FSEIS. As noted earlier, the Alaska Board of Game has not allowed subsistence or sport hunting of deer on Kupreanof Island until recently. This suggests that subsistence users who had traditionally harvested deer on Kupreanof Island prior to the 1975 closure shifted to other more reliable, nearby areas such as Admiralty Island for the harvest of deer. However, the deer population on Kupreanof Island has returned to a huntable population level.

The projected habitat capability of the analysis area is displayed in the 1993 FSEIS Chapter 3, Wildlife, pages 13-14 and Chapter 4 pages 13-20. Harvest in Alternative 5B, which has the greatest effect on deer habitat, will result in a modeled reduction of 48 deer from existing habitat levels on the study area by the year 2020 when the regeneration in the harvested stands reaches crown closure. This is less than a 4 per cent reduction from the modeled existing habitat capacity.

The harvest from Alternative 5B would result in a modeled reduction of 79 deer from the original habitat conditions found in 1954 compared to the year 2020 when the regeneration in the harvested stands reaches crown closure. This is less than a 6 per cent reduction from the modeled 1954 habitat capacity. The possibility of a significant restriction of deer for subsistence users is primarily due to the estimated growth in future hunter demand, not in a reduction in the habitat capability of the forest.

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Based on the modeled habitat capability and the estimated future demand for deer, it is determined that there is a possibility of a significant restriction for the abundance or distribution of deer in VCU 442 (WAA 5136) currently, even with the No Action Alternative 1 which has no reduction in habitat capability. There is a possibility of a significant restriction for the abundance and distribution of deer in VCU 424 (WAA 5135) in the future by the year 2005. Table 4-10 displays the possibility of a significant restriction of deer for subsistence users by alternative based upon 1993 projections. Table 4-11 displays the possibility of a significant restriction of deer for subsistence users by alternative based upon future projections to the year 2040.

Table 4-10. Possibility of a Significant Restriction of Deer for Subsistence Users by Alternative In 1993.¹

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Abundance/ Distribution	No*	Yes	No*	Yes	Yes
Access	No	No	No	No	No
Competition	No	No	No	No	No

¹ "Yes" indicates there may be a significant restriction and "No" indicates there is no significant possibility of a significant restriction.

* Alternative 1 and Alternative 4 are shown as NO because they do not affect VCU 424 (WAA 5136) and do not reduce the habitat capability in WAA 5136 beyond its existing level. They also do not change the habitat capability/demand relationship. The data suggests that demand for deer has exceeded habitat capability even back in 1960 in this WAA.

Table 4-11. Possibility of a Significant Restriction of Deer for Subsistence Users by Alternative by 2040.¹

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Abundance/ Distribution	Yes*	Yes	Yes*	Yes	Yes
Access	No	No	No	No	No
Competition	No	No	No	No	No

¹ "Yes" indicates there may be a significant restriction and "No" indicates there is no significant possibility of a significant restriction.

* Alternative 1 and Alternative 4 are shown as YES because, even though they do not affect VCU 424 and do not reduce the habitat capability in WAA 5136 beyond its existing level, estimated future demand in WAA 5135 is expected to exceed modeled habitat capability.

Wildlife Effects and Evaluation

Abundance and Distribution of Furbearers

Some trapping occurs on north Kupreanof Island as indicated by the harvest of furbearers in ADF&G Minor Harvest Areas (MHA) on Kupreanof Island. Proposed harvest units in several alternatives are located in mapped furbearer-subsistence use areas in Portage Bay (VCU 442). Although the trapping areas are few, they are important to the rural communities using the study area.

Furbearers harvested on Kupreanof Island are mainly marten, mink, and river otter generally during periods of high market demand.

The estimated marten habitat capability within the analysis area in 1954 was set at 127 animals. Projected numbers in 1993 total 123 animals for an estimated 3 percent reduction.

Most of the proposed developmental activities occur outside of the furbearer-subsistence use areas within the analysis area. The Subsistence analysis projects effects on furbearer abundance in the furbearer use areas as minimal (see the Wildlife section in Chapter 3, 1993 FSEIS). Therefore, there is no significant possibility of a significant restriction to the subsistence use of furbearers under any alternative.

Abundance and Distribution of Waterfowl

The action alternatives associated with the analysis area do not affect wetlands habitat. Waterfowl abundance and distribution is not expected to change in any alternative. Therefore, there is no significant possibility of a significant restriction to the subsistence use of water fowl under any alternative.

Abundance and Distribution of Black Bear

The north shore of Kupreanof Island and Portage Bay are popular areas for black bear hunting. Specific effects on black bear habitat capability are not expected to adversely affect the population. Projected changes in population for the analysis area indicate a maximum of one percent reduction. Therefore, there is no significant possibility of a significant restriction to the subsistence use of black bear under any alternative.

Abundance and Distribution of Marine Mammals

Currently, there is no evidence to suggest that timber harvest and related development activities have any impact on marine mammals. Therefore, there is no significant possibility of a significant restriction to the subsistence use of marine mammals under any alternative.

Access to Wildlife

Access to historic subsistence-use areas has not been affected by past land-use activities and will not be affected by any of the proposed alternatives. Nor are there any projected effects in the foreseeable future due to activities proposed in this analysis. This is because traditional access by foot, boat or float plane would remain the same.

The developed road system allows seasonal access to much of north Kupreanof Island. These existing and proposed roads will increase access to some areas traditionally used for subsistence wildlife hunting. Presently, the only means of motor vehicle access to Portage Bay is by boat or barge. The Alaska Marine Highway System does serve Kake on a weekly basis, but Portage Bay is not connected to Kake by road at this time, and no alternative in this FSEIS makes that connection. It is not likely that other rural communities would use the Alaska Marine Highway ferry to access wildlife subsistence resources in the study area.

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Competition for Wildlife

An increase in competition for subsistence wildlife resources from non-rural community residents is not projected to result from the alternatives proposed in the FSEIS. Competition for those wildlife resources is not projected to increase in the foreseeable future due to activities proposed in this project because no alternatives in the FSEIS connect Kake to Portage Bay by road. The current use by non-rural residents and out-of-state hunters is assumed to remain limited during the life of the proposed project.

Black bear is the only known wildlife resource currently being harvested on Kupreanof Island by non-rural and out-of-state residents. There have been no direct comments in any of the applicable ANILCA 810 Hearing testimony to indicate that competition for black bear by the nonresident hunters and non-rural Alaskan residents is affecting the ability of rural community residents to harvest black bear.

There could be an increase in short term competition from individuals associated with the Portage Bay camp. However, this possible increase in competition is not projected to be substantial or long term because of the limited number of people potentially involved, the seasonal availability of resources for harvest, and the intermittent use of the camp.

Wildlife Findings

Based on the habitat capability models used, this analysis concludes the actions proposed in the alternatives will not significantly restrict subsistence use of wildlife, except deer. A finding of no significant possibility of a significant restriction is determined for the remaining wildlife resources. The Finding is based on projected resource effects by the three evaluation categories: abundance or distribution, access, and competition.

Fish and Shellfish Effects and Evaluation

Abundance and Distribution of Salmon

This FSEIS states each of the action alternatives has some associated risk for impacting fish habitat within the study area. People who have testified at the ANILCA hearings emphasized the importance of protecting salmon habitat.

The use of stream buffers mandated by the Tongass Timber Reform Act and the application of Best Management Practices are expected to significantly reduce or eliminate fisheries concerns. All proposed timber harvest units near salmon spawning and rearing streams are protected by buffers of at least 100 feet on each side of all Class I streams and on each side of Class II streams that flow directly into Class I streams.

The effects from the proposed actions for the foreseeable future are also projected to be minor. Therefore, there is no significant possibility of a significant restriction to the subsistence use of salmon under any alternative.

Abundance and Distribution of Other Finfish

The action alternatives for the study area are projected to have no impact and no foreseeable future impact on other finfish habitat. Therefore, there is no significant possibility of a significant restriction to the subsistence use of furbearers under any alternative.

There was concern expressed about the impacts to a herring spawn area near the Little Hamilton Island log transfer facility from the use of the LTF. There are no known adverse effects since the LTF is a crane and barge facility. The Forest Service will monitor the LTF during herring spawn to determine if timing restrictions are necessary to limit any adverse impacts.

Abundance and Distribution of Shellfish

The FEIS projects no measurable effects due to Alternatives proposing timber harvest and road construction on habitat for crabs, clams, and other shellfish. The project effects for the foreseeable future are also projected to be negligible. Therefore, there is no significant possibility of a significant restriction to the subsistence use of shellfish under any alternative.

Access to Fish and Shellfish

Access to historic subsistence use areas is not projected to be affected by past land use activities and would not be affected by any of the proposed activities or development. Nor is there a significant possibility it would be affected in the foreseeable future because of the proposed activities related to this development. This determination is made because traditional access to the area for subsistence use of fish and shellfish is by boat and this method of access would remain unchanged, although there would be increased access via roading to a few reaches of streams that were not previously used for the harvest of salmon. Therefore, there is no significant possibility of a significant restriction to the subsistence use of fish or shell fish under any alternative.

Competition for Fish and Shellfish

A substantial increase in competition for subsistence fish and shellfish resources from non-rural community residents is not projected to result from the alternatives proposed in the FSEIS. Nor is competition for those wildlife resources projected to increase in the foreseeable future due to activities proposed in this project. This is because no alternative in the FSEIS connects Kake to Portage Bay by road. The current use by non-rural residents and out-of-state fishermen is assumed to remain limited during the life of the proposed project.

There could be an increase in short term competition from individuals associated with the Portage Bay camp. However, this possible increase in competition is not projected to be substantial or long term because of the limited number of people potentially involved, the seasonal availability of resources for harvest, and the intermittent use of the camp.

Fish and Shellfish Findings

Based on the data and models used, this analysis concludes the actions proposed in any of the Alternatives would not cause a significant possibility of a significant restriction of subsistence use of fish and shellfish in the analysis area.

**Other Foods Effects
and Evaluation**

Information and data from the Tongass Resource Use Cooperative Survey (TRUCS), ADF&G Subsistence Division Technical Reports, public comments, and ANILCA 810 Subsistence Hearing testimony have provided additional information concerning the gathering of other foods by rural communities using the analysis area.

Abundance and Distribution of Other Foods

Most traditional gathering of other foods occurs near beach and estuarine areas. No activities proposed in the alternatives would infringe upon the beach and estuarine areas. The proposed timber harvest activity would improve the availability of berries in the short-term. Based on a projected increase of berries and the locations of the potential activities, short term and reasonably foreseeable effects of the proposed action alternatives on abundance and distribution would be minimal. There would be no significant restriction on abundance or distribution of other foods.

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Access to Other Foods

Access to traditional other food gathering sites and areas has not been affected by past land use activities and will not be affected by any of the proposals in this analysis. Nor will there be a significant restriction in the foreseeable future as a result of the activities proposed here. This is because traditional means of access via foot and boat would remain the same.

Roads constructed in the Bohemia Mountain area will open up areas that have not been traditionally used for other food gathering. There would be no significant restriction on the access to other foods.

Competition for Other Foods

There may be some increased competition for other food resources from Alaska non-residents and non-rural residents employed at Portage Bay. However, this increase would not be substantial or long-lived, due to the limited number of people involved and intermittent use of the camp and facility. There would be no significant restriction due to competition for other foods.

Other Foods Finding

This analysis concludes the actions proposed in any of the Alternatives would not result in a significant restriction of subsistence use of other food resources within the analysis area.

Marine Mammals Effects and Evaluation

Currently there is no evidence to suggest that timber harvest activities have any effects on marine mammals. Therefore, there is no significant restriction to subsistence use of marine mammals by the rural communities surrounding the analysis area.

Timber Effects and Evaluation

The Forest Service free-use policies in Alaska for firewood and timber remain unchanged by any of the Alternatives. None of the proposed alternatives for the analysis area affects the availability of firewood and personal use timber. There would be no significant restriction on the subsistence use of timber within the analysis area.

Direct, Indirect, and Cumulative Effects

This FEIS evaluates whether this project, in combination with other past, present, and reasonably foreseeable future actions, may significantly restrict subsistence uses. The precise location of future projects is not clearly known until specific project proposals are made. The subsistence evaluation concludes whether future activities may significantly restrict subsistence uses.

Actions such as logging on any State or private lands surrounding the study area may also affect subsistence resources harvested by the rural communities. The proposed future Five-Mile Timber Sale is planned for 1999. This sale may add 12 miles of road and harvest 15 MMBF. These activities would take place from the Portage Bay logging camp and the Portage Bay LTF would likely be used.

Enough is known about foreseeable activities on private other lands surrounding the project area to project that subsistence use of deer may be significantly restricted. Subsistence use of black bear, furbearers, waterfowl, salmon, other finfish, and other food subsistence resources in the project area is not expected to be significantly restricted by these future activities.

The Forest Service is in the process of revising the Tongass Land Management Plan (TLMP) through the NEPA process. Potential effects to subsistence users are being addressed during the revision. Project environmental analyses will be required prior to harvest of any additional timber beyond the

amount proposed in this project. Subsistence use effects will be evaluated in each of those analyses.

TLMP analysis has determined that all of the alternatives considered in the revision of the Forest Plan, if all permissible projects were fully implemented, have the potential to impact subsistence uses of deer, brown bear, and furbearers, specifically marten, due to potential effects of projects on abundance/distribution and competition (TLMP Revision, Supplement to the DEIS). Due to the uncertainties associated with projecting impacts of proposed forest-wide projects fifty years into the future, it is difficult to say whether these impacts would rise to the level that they may significantly restrict subsistence uses of these resources.

Should subsistence resources become limited at some point, the Federal Subsistence Board has the authority to regulate subsistence and non-subsistence uses of these resources.

Displacement of Subsistence Users

Timber harvest is continuing on private lands surrounding Kake on Kupreanof Island. This harvest has had a major influence on locally available subsistence resources immediately adjacent to Kake. There is concern about cumulative effects of timber harvest and long term implications for subsistence resources on the private lands.

The proposed Bohemia Mountain timber harvest activities are not expected to displace subsistence users from the traditional areas used for harvesting wildlife (other than deer), marine mammals and timber. Some subsistence users have indicated they would avoid areas where there was noise or other evidence of logging in the area. Since the beach, estuary, and riparian areas where most subsistence activities take place will remain intact, subsistence activities will likely resume when adjacent logging activities end.

Subsistence Determinations

Section 810 (a)(3) of ANILCA requires that when a use, occupancy, or disposition of public lands would significantly restrict subsistence uses, determinations also must be made that (1) the significant restriction of subsistence uses is necessary, consistent with sound management of public lands, (2) the proposed activity involves the minimum amount of public lands necessary and (3) reasonable steps will be taken to minimize adverse impacts on subsistence uses and subsistence resources resulting from the action. The proposed action may significantly restrict subsistence uses of deer.

Necessary, Consistent with Sound Management of Public Land

The actions proposed in this document have been examined to determine whether they are necessary, consistent with the sound management of public lands. Standards used for the review include (1) the National Forest Management Act of 1976; (2) the Alaska National Interest Lands Conservation Act (1980); (3) the Alaska Regional Guide (1983); (4) the Tongass Land Management Plan and draft Revision; (5) the Tongass Timber Reform Act (1990); (6) the Alaska State Forest Practices Act; and (7) the Alaska Coastal Zone Management Program.

The Alaska National Interest Lands Conservation Act (ANILCA-1980-Public Law 96-487) placed an emphasis on the maintenance of subsistence resources and lifestyles. However, the Act also required the Forest Service to maintain the timber supply from the Tongass National Forest to dependent industry at a rate of 4.5 billion board feet per decade (450 million board feet per year). The Tongass Timber Reform Act (TTRA-1990) amended ANILCA by removing the 4.5 billion board foot level and replacing it with direction for the Forest Service to seek to meet market demand. Demand for timber from the Tongass National Forest is expected to remain near 400 million board feet per year for the next

decade (Morse 1994, 1995). New volume offered by the Forest Service in Fiscal Year 1994 was 278 million board feet. New volume scheduled for offer in fiscal year 1995 is 320 million board feet with Bohemia Mountain Timber Sale being part of the planned offer. All volume offered in Fiscal Year 1995 is anticipated to be fully utilized.

The alternatives presented in the Bohemia Mountain Timber Sale FSEIS encompass four action alternatives that would produce the resources that would best meet the needs of the American people, help achieve multiple use management objectives in the Tongass Land Management Plan, and seek to meet market demand for timber from National Forest System lands for a dependent industry, as directed in the Tongass Timber Reform Act of 1990. All of the action alternatives involve some potential to impact subsistence uses. There is no alternative that will meet offer volume objectives and yet avoid a significant possibility of a significant restriction in the study area. Therefore, based on the analysis of the information presented in this document on the proposed alternatives, these actions are necessary and consistent with sound management of public lands.

Amount of Land Necessary to Accomplish the Purpose of the Proposed Action

Much of the Tongass National Forest is used by one or more rural communities for subsistence purposes for deer hunting. The areas with the highest subsistence use are the places adjacent to existing road systems, the beaches, and the areas in close proximity to communities. The extent and location of the subsistence use area precludes complete avoidance of subsistence use areas within the project area. Areas other than subsistence use areas that could be harvested may be limited by legislated restrictions to harvest, forest plan land use designations, or other resource concerns such as soil and water protection, high-value wildlife habitat, economics, visuals, or unit and road design restrictions. Effort was taken to protect the highest value subsistence areas in the Bohemia analysis.

The impact of viable timber harvest projects normally includes alteration of old-growth habitat which has the potential to reduce projected habitat capability for old-growth dependent subsistence species. It is not possible to lessen harvest in one area and concentrate it in another without impacting one or more rural communities' important subsistence use areas. In addition, harvestable populations of game species could not be maintained in a natural distribution across the Forest if harvest were concentrated in specific areas. A well-distributed population of species is also required by the Forest Service regulations implementing the National Forest Management Act (NFMA).

Reasonable Steps to Minimize Adverse Impacts Upon Subsistence Uses and Resources

Most of the standards, guidelines and mitigation measures are designed to maintain fish and wildlife habitat productivity, and well distributed viable populations at as high a level as possible, consistent with meeting the timber goals of TLMP and TTRA.

All of the action alternatives have incorporated the Forest Plan Revision standards and guidelines. Project design criteria included locating roads and units outside of important subsistence use areas such as the beach fringe, estuary fringe, and riparian areas adjacent to salmon streams. This has resulted in protection of the highest value subsistence use areas and maintained well distributed populations of subsistence resources.

Perhaps the most significant subsistence resource in the analysis area is the salmon. Fish habitat is protected in each alternative through the application

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of Best Management Practices and stream buffers. In addition to protecting fish habitat these buffers also protect beach fringe, estuarine, and riparian habitat important to other species such as deer, black bear, and furbearers.

Mitigation to enhance deer habitat in second growth stands following timber harvest includes thinning to a wider than normal spacing which enhances forage production and delays crown closure in the second growth stand. Thinning to a wider standard has been successfully employed in southeast Alaska. The FSEIS for the Bohemia Mountain Timber Sale project includes a final determination about the significant restriction on subsistence use that may result from the implementation of the preferred alternative. Below is a summary of the FSEIS evaluation and findings:

- The potential foreseeable effects from the action alternatives in this project do not present a significant restriction of subsistence uses of black bear, furbearers, marine mammals, waterfowl, salmon, other finfish, and other foods.
- There may be a significant restriction on subsistence use of deer in the project area in the future for Kake, Petersburg/Kupreanof, and Wrangell residents regardless of which alternative is implemented, including the No Action Alternative.

ANILCA 810
Hearing Summary

ANILCA 810 subsistence hearings were held in relation to the Bohemia Mountain Timber Sale for the north Kupreanof Island study area. Hearings were held in the following communities: Kake, June 26, 1991, and September 2, 1993; and Petersburg, June 24, 1991, and September 1, 1993.

Sensitive Plants

The five plant habitats that occur in the study area that may have sensitive plants are: forest edge, forest, open forest, stream sides and river banks, and bogs (muskegs).

The analysis area has a high proportion of muskeg (24%) and open forest (44%), with the remainder primarily closed forest habitat. Forest edges are present where forests and muskegs meet. Streams are present and 37 stream crossings are planned in Alternative 5B.

Under Alternative 5B, about 250 acres of open forest will be harvested out of 30,030 acres, about 0.8% of the open forest habitat. For forest habitat, 2.3% of volume class 4, 8.4% of volume class 5 and 6.4% of volume class 6 will be harvested from the study area. Roads will traverse about 17.3 miles through muskeg and open forests and will affect an additional 50 acres. Total acreage affected is less than 1% (0.63%) of these habitats.

No Sensitive Plants were found in any of the proposed harvest units.

Choris bog orchid (*Platanthera chorisiana*) was found at eleven locations along the proposed road system, both within the proposed road corridor and adjacent to the corridor. The number of plants found on a site ranged from one to 22. A total of 100 plants were found.

The proposed timber harvest and road system will affect less than one percent of the habitat capable of supporting *Platanthera chorisiana* in the study area. The impact of this project will not contribute to loss of species viability or create significant trends toward Federal listing.

Recreation

The following replaces the second complete paragraph on page 35, Chapter 4, 1993 FSEIS.

All action alternatives might result in small impacts to users of the trails, cabins, and Wilderness due to distant views and sounds of harvesting, construction, and hauling/sorting/loading activities. Use of these roads is not anticipated to change much as a result of implementing these alternatives. Potential opportunities for Kupreanof might be impacted, depending on the market segment of users attracted to the area and the expectations they have for LUD IV lands.

Timber

The following section is added to the 1993 FSEIS Chapter 4, Timber section.

Timber Sale Economics

The realignment of Road 6031 increases the logging and roading costs in Alternative 5B. The current market estimate for net pond log value for Alternative 5B is a positive \$166/MBF. The mid-market net pond log value is now -\$84/mbf.

The purpose of the economic analysis is to provide a means by which short-term costs and revenues for each alternative can be compared. This economic analysis is done for the purpose of relative ranking of the alternatives only. Actual timber values and costs at the time of the sale may deviate, due to fluctuations in market conditions, from the numbers displayed in the alternative comparisons.

Timber markets are historically volatile and it is difficult to predict the future selling value of timber. However recent timber market assessments (Morse, 1994 and 1995) indicate that there is available capacity and strong market demand in southeast Alaska. At the current time, both pulp and sawlog prices are high. To obtain an estimate of what current market values might be, the mid-market values and costs were adjusted to Third Quarter 1994 and are displayed in Table 4-12 Current Timber Value and Cost Estimates by Alternative. The current market estimate for net pond log value for Alternative 5B is a positive \$166/MBF. "Net pond log value" is an approximation of market value. It is estimated by starting with the value of the log delivered to the mill (pond log value) and then deducting all the costs associated with the harvest and transportation of the logs to the mill. The manufacturing costs are not included in this type of analysis because they are a business decision for the timber purchaser based upon the end products made, the manufacturing process, and market values which can not be accurately predicted. Net pond log value is not a precise predictor of market value, but it is very useful for comparing alternatives since any changes in market values or harvest costs are likely to affect each alternative in about the same way. This current market analysis is also done for the purpose of relative ranking of the alternatives. Actual timber values and costs at the time of the sale may deviate, due to fluctuations in market conditions, from the numbers displayed in the alternative comparisons.

Table 4-12. Current Timber Value and Cost Estimates by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Timber Value (\$/MBF)*	0	613	636	631	631
Total Logging Costs (\$/MBF)	0	314	365	331	349
Specified Road Construction Costs (\$/MBF)	0	10	194	134	123
Total Costs (\$/MBF):	0	324	559	465	472
Net (\$/MBF):	0	289	77	166	159
Total Pond Log Value \$	0	3,063,400	1,393,700	5,693,800	5,342,400

*Values and costs estimated from Third Quarter 1994 Residual Value Appraisal Data adjusted to pond log value.

Recent timber market assessments (Morse, K. 1994 and 1995) confirm that there is under-utilized mill capacity in the region and a strong market for wood products. Under current market conditions, in which current end-product selling values have increased dramatically since 1990, there is good potential for timber sales from this project to be profitable to operators of average efficiency. Under these circumstances, and given the limited supply of timber from other sources, there is a market demand for timber from this project area and all sales offered are expected to be purchased with a positive stumpage return to the government.

Timber markets may vary dramatically from the time a sale is planned to the time it is actually sold. Timber values can change by over \$200 per thousand board feet in different market time periods.

To help compensate for these market fluctuations when doing the analysis, a mid-market timber selling value was used based upon the average middle selling value over the previous decade. The use of the mid-market assessment method is a Forest Service Policy stated in FSH 2409.18-93-3.

The mid-market assessment for the Bohemia analysis was based on weighted average pond log values from the previous years, estimated logging and roading costs, a 60% normal profit ratio, and the base rates established on the date the Forest Service initiates the NEPA process with publication of a Notice of Intent in the Federal Register. For this mid-market analysis, the average middle market was established for January 22, 1990. The mid-market timber values and costs are displayed by alternative in Table 4-13.

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Table 4-13. Mid-Market Timber Values and Costs by Alternative

	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Timber Value (\$/MBF)*	0	234	243	241	241
Total Logging Costs (\$/MBF)	0	194	225	204	216
Specified Road Construction Costs (\$/MBF)	0	9	175	121	111
Total Costs (\$/MBF):	0	203	400	325	327
Net (\$/MBF):	0	31	-157	-84	-86

* Timber value in \$/MBF is pond log value minus 60% normal profit and risk.

Units Added:

Units 539 and 541 were added to the Bohemia Timber Sale between the draft SEIS and final SEIS.

Unit 539 is located high on the east slope of Bohemia Mountain, adjacent to proposed Unit 511. This unit is in Alternatives 4A, 5B and 6. This unit is approximately 41 acres and has an estimated 1,542 MBF of net saw timber. The only resource concern identified was scenic quality. Consequently the unit was reshaped and reduced in size to meet the visual quality objective of Partial Retention.

Unit 541 is located near the center of the study area between Bohemia Mountain and Portage Bay. It is included in only Alternative 5B. The unit boundary encompasses approximately 90 acres but only 35 of those acres will be harvested, in small patch clearcuts. This unit will contribute about 570 MBF of net saw timber to the sale. Fisheries and wildlife concerns along the Class I stream west of the unit were addressed by the 100 foot stream buffer.

Transportation

The realignment of Road 6031 moves it out of the LUD II lands. *The section "Road Development in a LUD II Area" is no longer relevant in the 1993 FSEIS, Chapter 4, page 47.*

The realigned route crosses short sections (less than 300 feet total length) of moderately steep side slopes. Full bench and end-haul will be necessary on slopes greater than 60 percent. This same segment will have a section of 10% adverse haul grade. The additional road construction and log haul costs are incorporated in the previous Tables 4-12 and 4-13, Timber Values and Costs by Alternative.

Road density: The 0.5 mile of forest development road added as a result of realignment of Road 6031 does not increase the road density (as defined by the number of miles of forest development road in a square mile) appreciably in Alternative 5B.

Clearing Acres: The additional 0.5 mile of Road 6031 will result in an increase of 3.4 acres of roadway clearing. Table 4-14 compares road clearing acres by alternative.

Table 4-14. Road Construction Clearing Acres by Alternative

Road Network	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Bohemia Roads	63	63	207	217	205
Portage Roads	45	50	45	65	65

Energy Requirements

The additional 0.5 mile of specified road construction in alternative 5B will result in consumption of an additional 2,010 gallons of fuel.

Table 4-15 shows the energy used for each action alternative:

Table 4-15. Estimated Fuel Consumption by Alternative.

Fuel Use	Alt. 1	Alt. 3	Alt. 4A	Alt. 5B	Alt. 6
Gallons/1,000	0	149	291	518	503
Gallons/MBF	0	14	16	15	15

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Alexander Archipelago Wolf	1-1; 3-4,5; 4-4,5
Alternative 1	S-2; 2-5,6,7,8,9,10; 4-1,3,4,5,6,12,22,23,24
Alternative 3	S-2,3,4; 2-5,6,7,8,9,10; 4-1,3,4,5,6,8,12,22,23,24
Alternative 4A	S-3,4,5; 2-5,6,7,8,9,10; 4-1,3,4,5,6,8,10,12,22,23,24
Alternative 5B	S-3,4,5; 2-1,2,5,6,7,8,9,10; 4-1,3,4,5,6,8,11,12,19,21,22,23,24
Alternative 6	S-3,4,5; 2-5,6,7,8,9,10; 4-1,3,4,5,6,8,12,22,23,24
Candidate Plant Species	S-2; 1-2; 2-1; 3-4,6,7
Candidate Wildlife Species	S-2; 1-1,2; 2-1; 3-4,5,6; 4-4
Choris Bog Orchid	3-6,7; 4-19
Cumulative Effects	2-5,7,8; 4-1,3,16,17
Decisions to be Made	S-2
Economics	S-4; 2-2,6; 3-4; 4-1,7,18,22
Energy Requirements	4-24
Fisheries	S-2,3; 1-2; 2-1,8; 4-14,23
Goshawk	3-4,5
Heritage Resources	S-2,4,5; 1-2
Issues	S-2; 1-2; 4-1
Kake/Portage Road Connection	S-2,4,5; 1-2; 4-11,14,15
Kittlitz Murrelet	3-4,5; 4-6
Logging Camp	S-2,4; 2-2; 4-14,15,16
Log Transfer Facilities	S-1,2,3,4,5; 1-2; 2-1,2,11; 4-14,16
LUD II	S-1,2,3,4,5; 1-1,2; 2-1,2; 4-23
Mitigation	S-5; 4-2,18,19
Old-Growth Forest	S-2; 4-2,6,18
Olive-sided Flycatcher	3-4,6
Preferred Alternative	4-19
Recreation	S-1,2,4; 1-2; 2-2; 3-4,7,8; 4-20
Recreation Cabin	S-4; 3-7,8; 4-20
Road Realignment	S-1,3,4; 2-1,2,5; 4-1,3,20,23
Roads	S-1,2,3,4,5; 1-1,2; 2-1,2,6,11,12; 3-4,5; 4-1,2,3,5,6,8,11,15,16,18,19,20,22,23,24
Rock Pits	S-5

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Scenic Quality	S-2,4,5; 1-2; 2-2,7; 4-23
Sensitive Plant Species	S-2; 1-1,2; 2-1; 3-6,7
Sensitive Wildlife Species	S-2; 1-1,2; 2-1; 3-4; 4-3
Streams	S-3,5; 2-1,8; 3-4; 4-1,6,14,15,18,19,23
Stream Crossings	S-3; 2-1,78 4-1,6,19
Subsistence	S-2,4; 1-2; 2-2,9,10; 4-6,7,8,9,10,11,12,13,14,15,16,17,18,19
Timber	S-1,2,3,4,5; 1-2; 2-1,2,5,6,12; 3-3,4,7,8; 4-2,3,4,5,7,8,10,11,13,14,15,16,17,18,19,20,21,22,23
Tongass Land Management Plan (TLMP)	1-1,2; 2-7; 3-8; 4-4,7,9,16,17,18
Tongass Timber Reform Act (TTRA)	S-5; 4-6,14,17,18
Transportation	S-1,2,5; 1-2; 2-2; 4-2,21,23
Watershed	S-3; 2-8; 4-1
Wetlands	S-2; 1-1,2; 2-1; 3-1,2,3,4; 4-2,3,13
Wild & Scenic River	S-2,3,5; 1-2
Wilderness	S-2,4; 1-2; 2-2; 4-20
Wildlife Habitat	S-1,2,3; 1-2; 2-2,9; 3-3; 4-14,18

Appendix A

APPENDIX A

Implementation Direction

This section replaces the Implementation Direction section in the 1993 FSEIS Appendix A.

Implementation Directions were designed to respond to the resource concerns and management objectives that were identified. The Implementation Directions state specifically how resources will be protected, including references to the appropriate Best Management Practices (BMP's).

Some units in this FSEIS are different from the 1991 FEIS units. In several cases the unit layouts in the FSEIS were redesigned in order to better address resource concerns that were voiced by the IDT members, other government agencies or private citizens. Changes were made in the size, shape and location of the proposed units. Unit design modifications that were made to respond to particular concerns are listed in the Implementation Direction section of the unit cards. These modifications were included on the unit cards to show how concerns were incorporated into the planning process, and what site specific actions were taken as a result of these concerns.

Implementation direction is given in the following narrative and on the individual unit cards:

All but one of the units planned in the Bohemia Mountain Timber Sale have a stand management objective of timber harvest production accomplished by a regeneration harvest with conversion to predominately even-aged management.

All cable yarded units will have individual green trees and snags left along setting boundaries and roads wherever it is compatible with safety and logging feasibility to contribute to future stand structure. These individual trees will be designated at the time of harvest. These trees will be selected for windfirmness; freedom from insects, disease and dwarf mistletoe; and noncommercial value.

Units 524 and 530 which use helicopter yarding will leave individual green trees and snags wherever it is compatible with safety and logging feasibility to contribute to future stand structure. These individual trees will be designated at the time of harvest. These trees will be selected for windfirmness; freedom from insects, disease and mistletoe; and noncommercial value.

The use of clearcutting with individual green tree retention to achieve the unit objectives is the optimal silvicultural method for the following reasons:

The Alaska Regional Guide established silvicultural and management standards for the western hemlock-Sitka spruce forest type (Alaska Regional Guide, page 3-18). Even-aged management in the form of clearcutting is, according to the Regional Guide, to be used where the management objective is to meet timber production objectives established in the Forest Plan, where there is a risk of dwarf mistletoe infestation, and where risk of windthrow is determined to be high.

Although dwarf mistletoe is not a major problem, it is found throughout the Bohemia Project Area. All of the harvest units being proposed are within LUD IV designation. LUD IV lands are defined in the Forest Plan as lands that are to be primarily used for commodity production. All units in the alternatives except Unit 541 are prescribed for clearcutting to achieve regeneration harvest while

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retaining individual green trees within the units to contribute to future stand structure. Unit 541 is to be managed in a two or multi-aged structure. The use of clearcutting with individual green tree retention will meet the objective of maintaining fast-growing, mistletoe-free stands of mixed species and is the optimum method of harvesting considering the following factors referenced in the Alaska Regional Guide:

1. The thin bark and shallow roots of hemlock and spruce make them particularly susceptible to logging injury which leads to decay and mortality. Losses from decay fungi are high, especially in the old-growth forests of Alaska. Conversion from old growth to young growth by clearcutting has the greatest potential for reducing decay.
2. Hemlock dwarf mistletoe, *Arcunthobium tsugense*, a common disease of western hemlock, can best be controlled by clearcutting. Elimination of residual overstory trees infected with dwarf mistletoe minimizes infestation of western hemlock in the new stand.
3. Exposure to the sun raises soil temperature, which speeds decomposition and nutrient cycling, thereby improving the productivity of the sites.
4. Clearcutting favors regeneration of Sitka spruce by destroying much of the advanced hemlock regeneration and by creating more favorable conditions for spruce regeneration.
5. The risk of blowdown in residual stands is eliminated. The chance of blowdown along cutting boundaries is increased but can be reduced through proper design of cutting units.
6. Natural regeneration of spruce and hemlock is increased after clearcutting.
7. Logging costs are lower than with other systems.

On June 4, 1992, F. Dale Robertson, Chief of the Forest Service, issued a letter on the subject of ecosystem management. As part of this letter, an attachment was included regarding clearcutting on National Forest lands and the use of other silvicultural systems including green tree retention. Specific items are listed which describe circumstances where clearcutting is appropriate.

The Chief's policy allows clearcutting as an appropriate silvicultural system when its use is instrumental in achieving forest plan objectives while precluding or minimizing the occurrence of potentially adverse impacts of insect or disease infestations, windthrow, logging damage, or other factors affecting forest health. It is also appropriate to provide for the establishment and growth of desired trees or other vegetative species that are shade intolerant.

The use of clearcutting with individual green tree retention is appropriate and consistent with the following criteria in the Chief's letter: The use of clearcutting with individual green tree retention will meet the Forest Plan objectives of timber production while maintaining fast-growing, mistletoe-free stands of mixed species. It is an appropriate method of harvesting and is consistent with the following factors in the Chief's policy: Clearcutting with individual green tree retention on the Bohemia Mountain Timber Sale will control mistletoe with the careful selection of mistletoe-free residual trees. It will minimize the future windthrow risk within the stand. The risk of windthrow to adjacent stands may be increased but can be reduced through proper harvest design. Clearcutting with individual green tree retention should minimize the potential for logging injury to the residual stand with its subsequent increased mortality and decay. It will provide for natural regeneration and growth of desired trees including a greater component of spruce and cedar which are less shade tolerant than hemlock. This may increase the vegetative diversity of the stand.

Process for Changes

These planned cards document the specific resource concerns, management objectives, and mitigation measures to govern the layout of the harvest units and construction of roads. These cards will be used during the implementation process to assure that all aspects of the project are implemented within applicable standards and guidelines. Similar cards will be used to document any changes to the planned layout as the actual layout and harvest of the units occurs with project implementation. The implementation record for this project will display each harvest unit, transportation facility, and other project components as actually implemented, any proposed changes to the design, location, standards, and guidelines, or other mitigation measures for the project, and the decisions on the proposed changes.

Proposed changes to the authorized project actions will be subject to the requirements of the National Environmental Policy Act (NEPA), the National Forest Management Act of 1976 (NFMA), Section 810 of the Alaska National Interest Lands Conservation Act, the Tongass Timber Reform Act (TTRA), the Coastal Zone Management Act (CZMA), and other laws concerning proposed actions.

In determining whether and what kind of NEPA action is required, the Forest Supervisor will consider the criteria for whether to supplement an existing Environmental Impact Statement (EIS) in 40 CFR 1502.9(c), and in particular, whether the proposed change is a substantial change to the intent of the Selected Alternative as planned and already approved, and whether the change is relevant to environmental concerns. The Forest Supervisor will consider whether an Environmental Assessment (EA) should be prepared to determine whether a supplement to the existing EIS is required, or whether the change is categorically excluded from preparation of an EIS or EA on the basis of criteria in FSH 1909.15. Connected or interrelated proposed changes regarding particular areas of specific activities will be considered together in making this determination. Cumulative impacts will be considered.

The intent of field verification was to determine the feasibility of a unit or road, not to locate final boundaries or road locations. Minor changes are expected during implementation to better meet on-site resource management and protection objectives. Minor adjustments to unit boundaries are also likely during final layout for the purpose of improving logging system efficiency. This will usually entail adjusting the boundary to coincide with logical logging setting boundaries. Many of these minor changes may be categorically excluded from documentation in an EIS or EA and will not present sufficient potential impacts to require any specific documentation or other action to comply with other laws. Some minor changes may still require appropriate scoping, environmental analysis, documentation in a Decision Memo, and public notice to comply with FSH 1909.15.

Unit Cards

The following unit cards supplement or replace individual unit cards in the 1993 FSEIS Appendix A:

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BOHEMIA MOUNTAIN TIMBER SALE - PLANNED UNIT CARD

UNIT DESCRIPTION

UNIT NUMBER(S):	405, 505, 605	AGE CLASS:	200+	VCU:	424
MANAGEMENT AREA:	S10	LUD CLASS:	IV	ACRES:	84
PREDOMINANT SPECIES: W. Hemlock, S. spruce, Alaska cedar					

UNIT ATTRIBUTES

HARVEST METHOD:	High Lead				
VOLUME/ACRE (NET SAWLOG) (MBF)	20	NET SAW (MBF):	1,706		

MANAGEMENT OBJECTIVES - RESOURCE CONCERNS OR OPPORTUNITIES

WATER QUALITY / SOILS:

Maintain sideslope stability in V-notches within the unit. Protect water quality in Class III streams which influence fisheries downstream.

FISHERIES:

Water quality in Class III streams influences fisheries downstream.

WILDLIFE:

There will be loss of stand structure and wildlife habitat.

VISUALS:

The unit will be visible from the proposed Duncan Salt Creek Wild and Scenic River Corridor.

RECREATION SETTING: CURRENT: SPNM AFTER HARVEST: RM

IMPLEMENTATION DIRECTION

VEGETATION:

Manage as an even-aged stand, clearcut for natural regeneration.

WATER QUALITY / SOILS:

Clean stream of all logging debris (BMP 13.16, E5). Directional fall and splitline across V-notches within the unit (BMP's 13.9; 13.16, E3, E4).

FISHERIES: Protect water quality on Class III streams for downstream fisheries (BMP 13.16, 01,03 & 05).

WILDLIFE:

Leave non-merchantable trees, where possible, along the northern boundary of the unit for stand structure and to provide biodiversity.

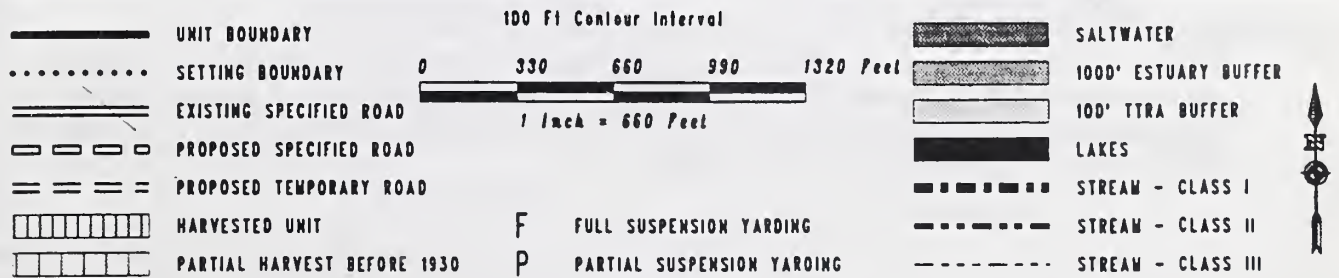
VISUALS:

The unit meets the visual quality objective of "Partial Retention".

UNIT DESIGN:

Streambanks were utilized as unit boundaries on the northwest and southeast side (BMP 13.2) to minimize water quality and soils concerns.

UNIT MAP 4A-405 5B-505 6-605



A Appendix

BOHEMIA MOUNTAIN TIMBER SALE - PLANNED UNIT CARD

UNIT DESCRIPTION

UNIT NUMBER(S): 406, 506, 606 AGE CLASS: 200+ VCU: 424
MANAGEMENT AREA: S10 LUD CLASS: IV ACRES: 60
PREDOMINANT SPECIES: W. Hemlock, S. spruce

UNIT ATTRIBUTES

HARVEST METHOD: High Lead
VOLUME/ACRE (NET SAWLOG) (MBF) 14 NET SAW (MBF): 836

MANAGEMENT OBJECTIVES - RESOURCE CONCERNS OR OPPORTUNITIES

WATER QUALITY / SOILS:
Maintain soil stability.

FISHERIES:
Water quality in Class III streams influences fisheries downstream.

WILDLIFE:
Loss of stand structure and moderate to high marten and deer habitat.

VISUALS:
Unit may be seen from the proposed Duncan Salt Creek Wild and Scenic River Corridor.

RECREATION SETTING: CURRENT: SPNM AFTER HARVEST: RM

IMPLEMENTATION DIRECTION

VEGETATION:
Manage as an even-aged stand, clearcut for natural regeneration.

WATER QUALITY / SOILS:
Partial suspension required to protect dissected slope (BMP 13.9).

FISHERIES:
Protect water quality on Class III streams for downstream fisheries (BMP 13.16, 01,03, & 05).

VISUALS:
Minimize visual impacts.

WILDLIFE:
The unit size was reduced, retaining wildlife habitat. Non-merchantable trees should be left, where possible, for stand structure.






UNIT DESIGN:
This unit was re-designed to meet the visual quality objective of "Partial Retention". Streambanks were utilized as unit boundaries (BMP 13.2) to mitigate water quality and soils concerns. A 1,000 foot wildlife corridor is maintained between units. Unit 506 will exceed a distance of 1/4 mile from the high water mark of Duncan Salt Chuck Creek.




UNIT MAP 4A-406 5B-506 6-606



0 1000 2000

Scale is 1 inch = 1000 feet

-  Unit Boundary
-  Proposed Specified Road
-  Stream - Class 1
-  Stream - Class 2
-  Stream - Class 3

-  1/2 mi. Corridor
-  TTRA Buffer
-  Lakes

200 Ft Contour Interval



A Appendix

BOHEMIA MOUNTAIN TIMBER SALE - PLANNED UNIT CARD

UNIT DESCRIPTION

UNIT NUMBER(S):	510, 610	AGE CLASS:	200+	VCU:	424
MANAGEMENT AREA:	S10	LUD CLASS:	IV	ACRES:	85
PREDOMINANT SPECIES: W. Hemlock, S. spruce, Alaska cedar					

UNIT ATTRIBUTES

HARVEST METHOD:	High Lead, Shovel				
VOLUME/ACRE (NET SAWLOG) (MBF)	24	NET SAW (MBF):	2,029		

MANAGEMENT OBJECTIVES - RESOURCE CONCERNS OR OPPORTUNITIES

WATER QUALITY / SOILS:

Minimize soil disturbance to reduce the risk of landslide.

VISUALS:

The unit will be visible at an angle from Portage Bay and Bohemia Lake.

RECREATION SETTING: CURRENT: P AFTER HARVEST: RM

IMPLEMENTATION DIRECTION

VEGETATION:

Manage as an even-aged stand, clearcut for natural regeneration.

WATER QUALITY / SOILS:

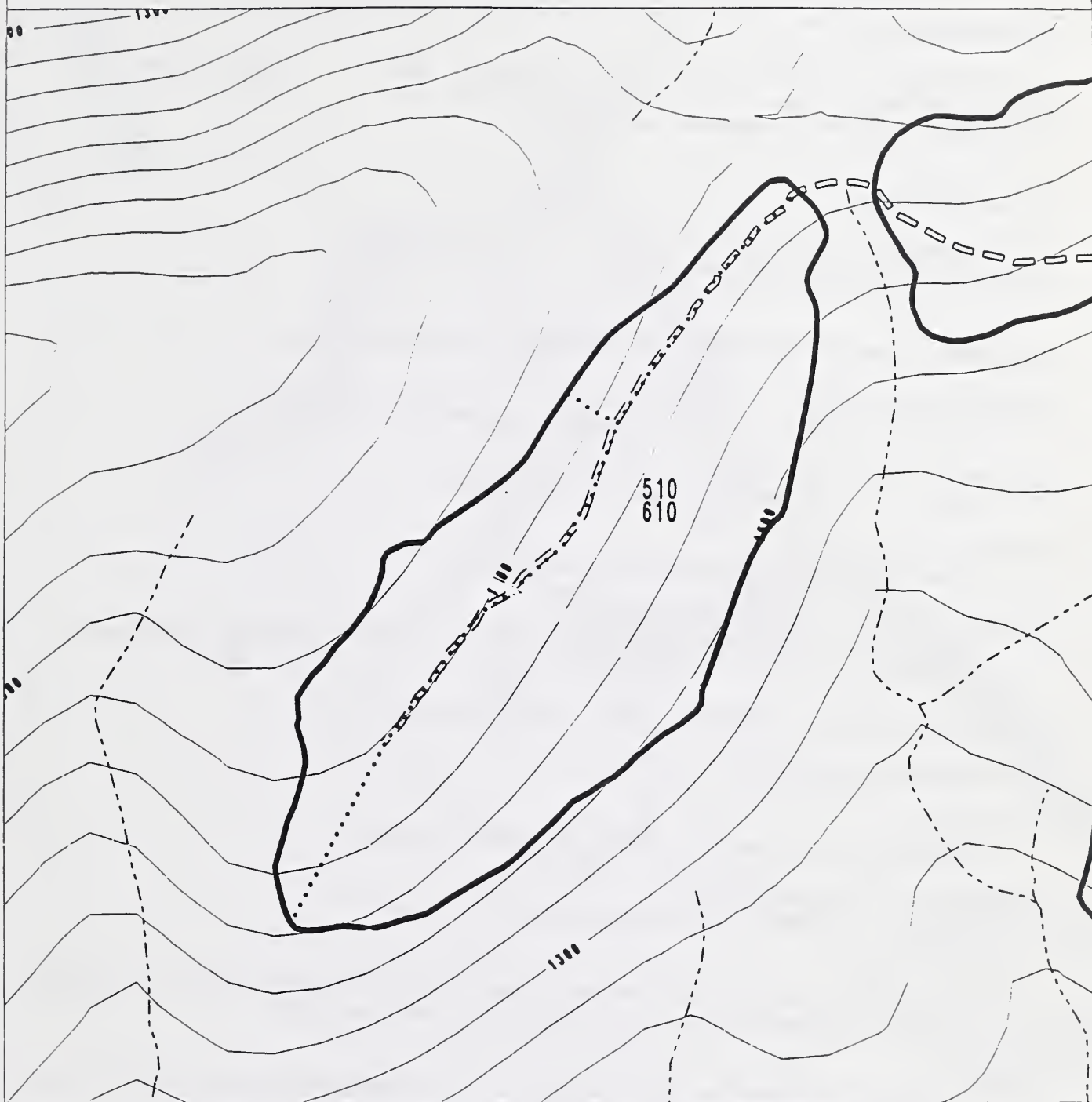
Maintain a buffer between the main V-notch channel to the east of the unit and the unit boundary (BMP 13.2, E3). Partial suspension is required to minimize soil disturbance (BMP 13.9).

VISUALS:

The uphill boundary line will be joined with an alpine muskeg opening so that the boundary blends in with the muskeg as much as possible. The inventoried VQO for the unit is "Modification". This unit meets the visual quality objective of partial retention as seen from Bohemia Lake and partial retention to modification as seen from Portage Bay. This is within the TLMP recommended range for the area of "Partial Retention" to "Maximum Modification".

UNIT MAP

5B-510 6-610



	UNIT BOUNDARY	100 Ft Contour Interval		SALTWATER
	SETTING BOUNDARY	0 330 660 990 1320 Feet		1000' ESTUARY BUFFER
	EXISTING SPECIFIED ROAD	1 inch = 660 Feet		100' TTRA BUFFER
	PROPOSED SPECIFIED ROAD			LAKES
	PROPOSED TEMPORARY ROAD			STREAM - CLASS I
	HARVESTED UNIT	F FULL SUSPENSION YARDING		STREAM - CLASS II
	PARTIAL HARVEST BEFORE 1930	P PARTIAL SUSPENSION YARDING		STREAM - CLASS III

A Appendix

BOHEMIA MOUNTAIN TIMBER SALE - PLANNED UNIT CARD

UNIT DESCRIPTION

UNIT NUMBER(S):	415, 515, 615	AGE CLASS:	200+	VCU:	424
MANAGEMENT AREA:	S10	LUD CLASS:	IV	ACRES:	44
PREDOMINANT SPECIES: W. Hemlock, Alaska cedar					

UNIT ATTRIBUTES

HARVEST METHOD:	High Lead, shovel				
VOLUME/ACRE (NET SAWLOG) (MBF)	24	NET SAW (MBF):	1,067		

MANAGEMENT OBJECTIVES - RESOURCE CONCERNS OR OPPORTUNITIES

WATER QUALITY / SOILS:

Minimize disturbance and sediment production from slopes and streambanks.

FISHERIES:

Class I and Class II streams are located near this unit.

WILDLIFE:

There will be loss of stand structure and wildlife habitat.

VISUALS:

The unit will be visible from Portage Bay and Frederick Sound. It is within view of Portage Bay anchorages.

RECREATION SETTING: CURRENT: SPNM AFTER HARVEST: RM

IMPLEMENTATION DIRECTION

VEGETATION:

Manage as an even-aged stand, clearcut for natural regeneration.

WATER QUALITY / FISHERIES / SOILS:

Splitlining is required on Class III stream (BMP 13.9; 13.16, E11).

FISHERIES:

All Class I and Class II streams in the Unit will have a 100 foot uncut buffer (BMP 12.6). The shape of the unit was changed to protect fish habitat near the southeast corner.

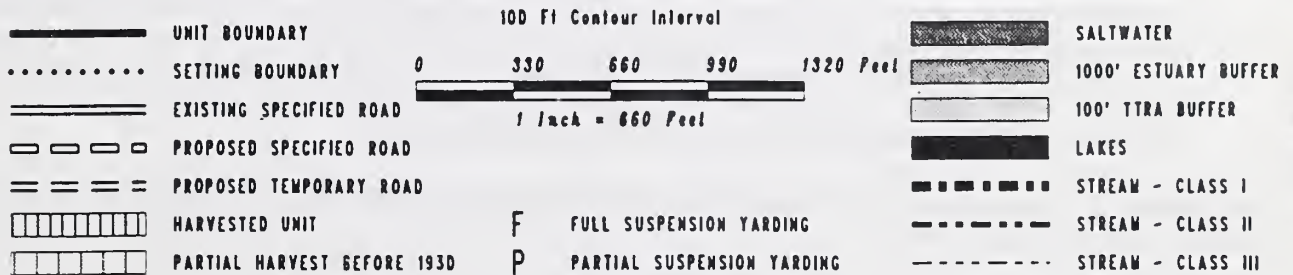
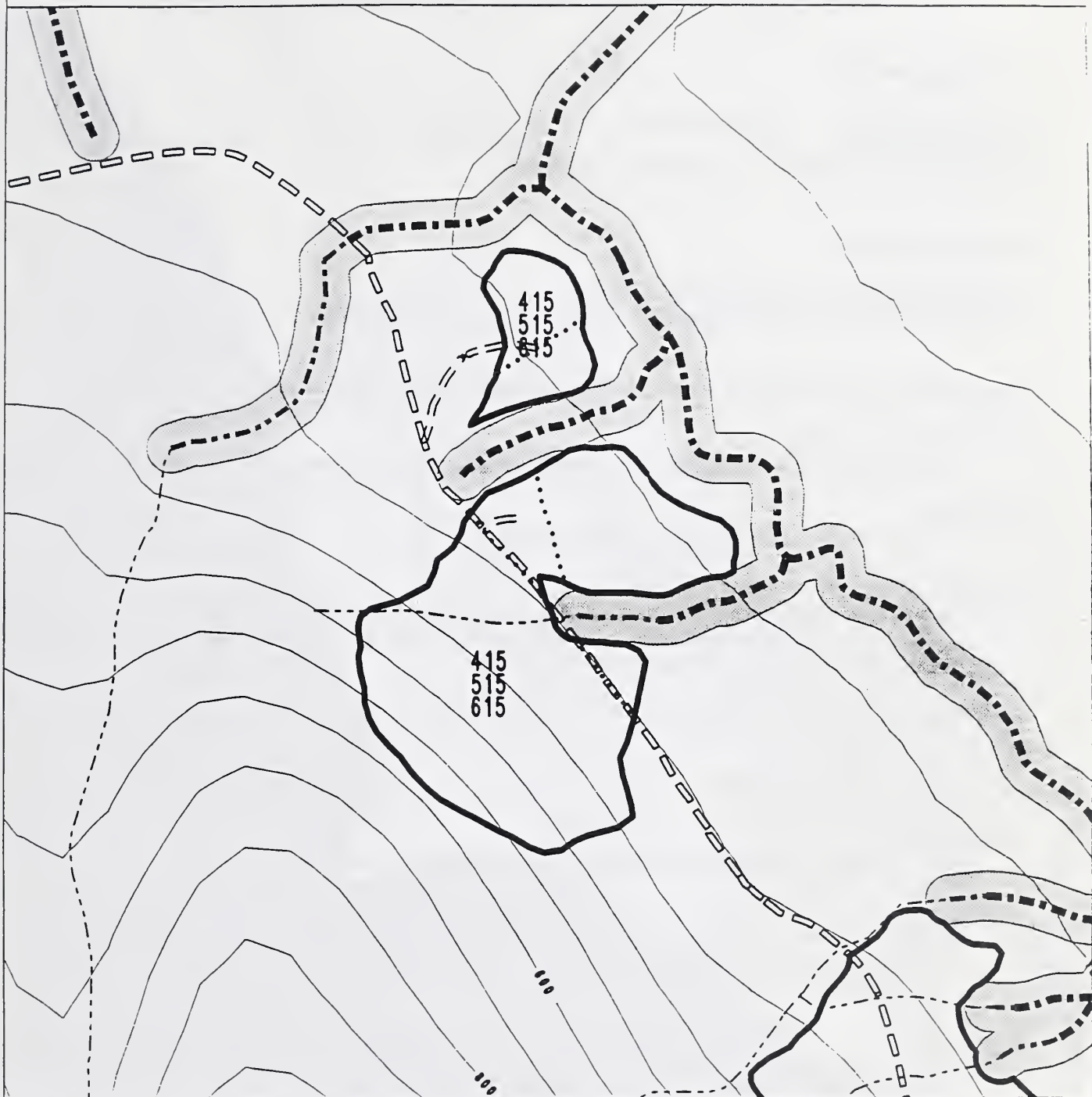
WILDLIFE:

Provide for structural diversity by leaving strips of non-merchantable trees, where possible, along unit boundaries. Diversity will also be provided by stream buffers.

VISUALS:

This unit will meet the criteria for "Partial Retention". Approximately one acre on the northwest corner of the unit and three acres on the south end of the unit were dropped to mitigate visual impacts.

UNIT MAP 4A-415 5B-515 6-615



A Appendix

BOHEMIA MOUNTAIN TIMBER SALE - PLANNED UNIT CARD

UNIT DESCRIPTION

UNIT NUMBER(S): 309, 529, 629 AGE CLASS: 200+ VCU: 442
MANAGEMENT AREA: S10 LUD CLASS: IV ACRES: 15
PREDOMINANT SPECIES: W. Hemlock, S. spruce

UNIT ATTRIBUTES

HARVEST METHOD: High Lead and Helicopter
VOLUME/ACRE (NET SAWLOG) (MBF) 29 NET SAW (MBF): 431

MANAGEMENT OBJECTIVES - RESOURCE CONCERNS OR OPPORTUNITIES

WATER QUALITY / SOILS:

Maintain channel stability and protect water quality in Class II stream.

FISHERIES:

A Class II fish stream is located within the unit.

WILDLIFE:

High value marten and deer habitat will be fragmented. Travel corridors will be impacted. - Maintain beach fringe habitat. Minimize windthrow. Ensure that travel corridors are maintained. A potential for helicopter disturbance on nesting Bald Eagles.

RECREATION SETTING: CURRENT: RM AFTER HARVEST: RM

IMPLEMENTATION DIRECTION

VEGETATION:

Manage as an even-aged stand, clearcut for natural regeneration.

WATER QUALITY / SOILS:

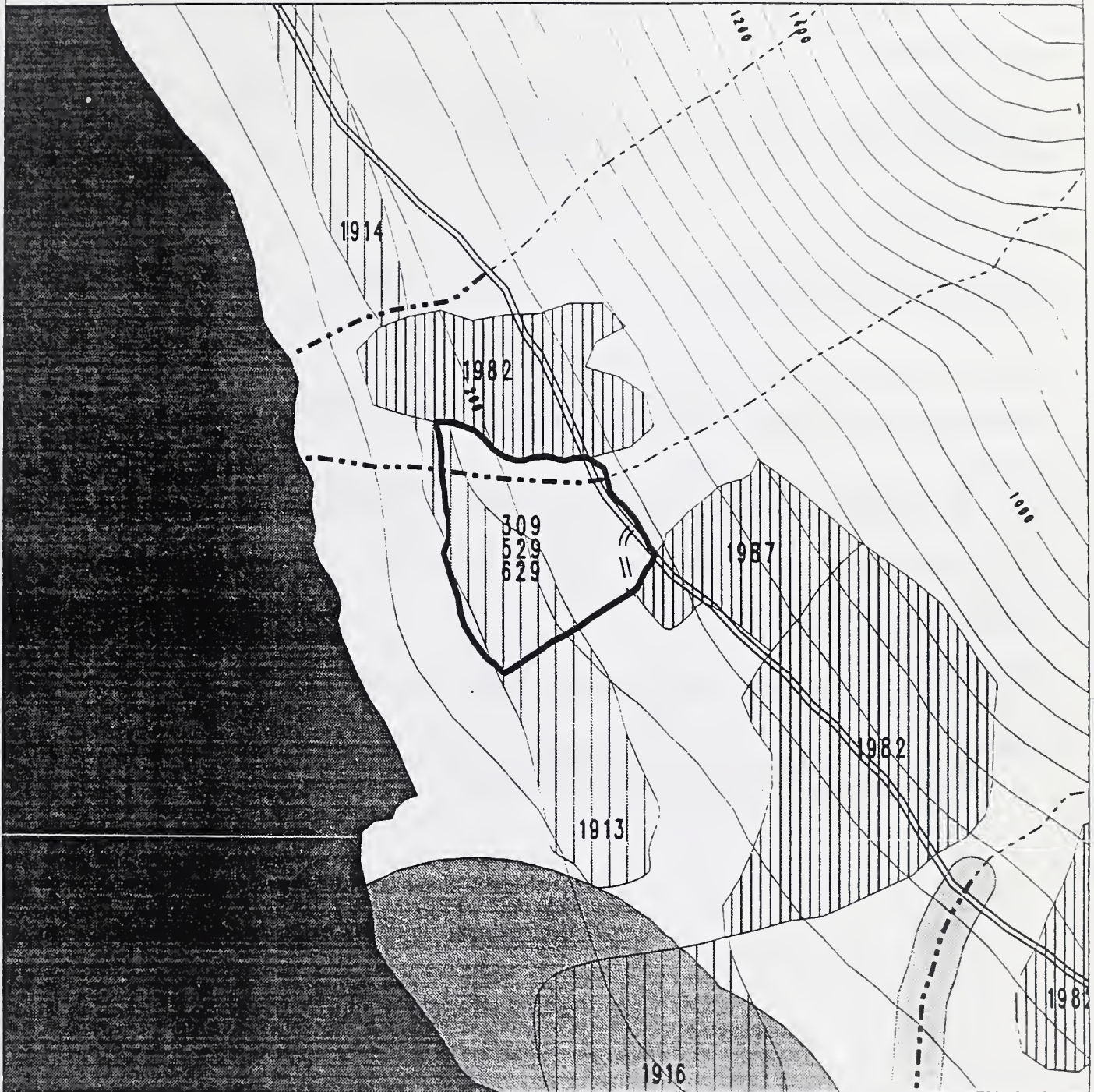
To reduce blowdown impacts on channel, harvest up to the existing Unit on northern boundary (BMP 13.2). Full suspension or helicopter yarding over the Class II stream channel that bisects the unit (BMP's 13.9;13.16, E11).

WILDLIFE:

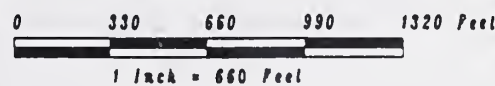
The unit is located 1,000 feet away from the estuarine boundary and maintains a 500 foot beach fringe boundary. Look for windfirm leave trees along the south portion of the unit. Travel corridors are available between the beach and the high country between this unit and Unit 530 Maintain an uneven-aged, unmerchantable, 50-100 foot strip along the south boundary of the unit. The existing bald eagle nests are greater than 1/4 mile (TLMP Revision Guideline) from the unit. An area 1/4 mile from the unit should be surveyed to determine the presence of nesting eagles prior to helicopter operations. A wildlife biologist needs to be consulted during layout.

UNIT DESIGN: The area of the unit north of the Class II stream will be helicopter yarded. Trees will be directionally fell away from the Class II stream.

UNIT MAP 3-309 5B-529 6-629



100 Ft Contour Interval



- UNIT BOUNDARY**
- SETTING BOUNDARY**
- EXISTING SPECIFIED ROAD**
- PROPOSED SPECIFIED ROAD**
- PROPOSED TEMPORARY ROAD**
- HARVESTED UNIT**
- PARTIAL HARVEST BEFORE 1930**

- F FULL SUSPENSION YARDING**
- P PARTIAL SUSPENSION YARDING**

- SALTWATER**
- 1000' ESTUARY BUFFER**
- 100' TTRA BUFFER**
- LAKES**
- STREAM - CLASS I**
- STREAM - CLASS II**
- STREAM - CLASS III**



A Appendix

BOHEMIA MOUNTAIN TIMBER SALE - PLANNED UNIT CARD

UNIT DESCRIPTION

UNIT NUMBER(S):	439, 539, 639	AGE CLASS:	200+	VCU:	424
MANAGEMENT AREA:	S10	LUD CLASS:	IV	ACRES:	41
PREDOMINANT SPECIES:	W. Hemlock, S. spruce, Alaska cedar				

UNIT ATTRIBUTES

HARVEST METHOD:	High Lead		
VOLUME/ACRE (NET SAWLOG) (MBF)	37	NET SAW (MBF):	1,542

(This unit is a portion of what was Unit 211 in the FEIS.)

MANAGEMENT OBJECTIVES - RESOURCE CONCERNS OR OPPORTUNITIES

VISUALS:

The unit is high on the slope, so it is likely to be seen from Portage Bay and Frederick Sound. - Meet TLMP's recommended VQO range of "Partial Retention" to "Maximum Modification".

RECREATION SETTING: CURRENT: P AFTER HARVEST: RM

IMPLEMENTATION DIRECTION

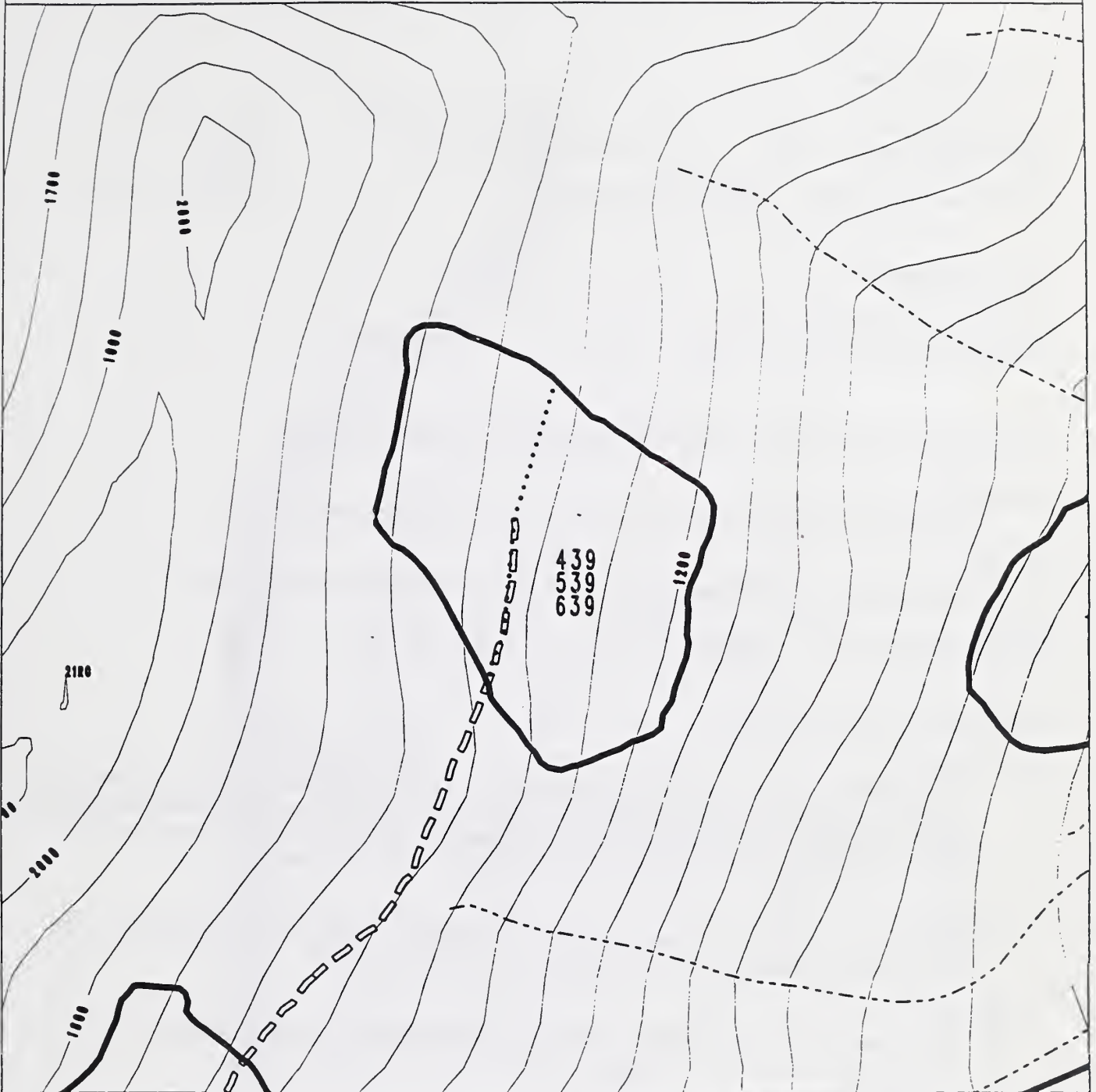
VEGETATION:

Manage as an even-aged stand, clearcut for natural regeneration.

VISUALS:

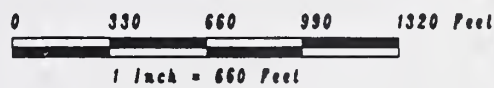
This unit was designed to meet the visual quality objective of "Partial Retention". It was reshaped and reduced in size in order to lessen visual impacts.

UNIT MAP 4A-439 5B-539 6-639



- UNIT BOUNDARY
- SETTING BOUNDARY
- EXISTING SPECIFIED ROAD
- PROPOSED SPECIFIED ROAD
- PROPOSED TEMPORARY ROAD
- HARVESTED UNIT
- PARTIAL HARVEST BEFORE 1930

100 Ft Contour Interval



- F FULL SUSPENSION YARDING
- P PARTIAL SUSPENSION YARDING

- SALTWATER
- 1000' ESTUARY BUFFER
- 100' TTRA BUFFER
- LAKES
- STREAM - CLASS I
- STREAM - CLASS II
- STREAM - CLASS III



A Appendix

BOHEMIA MOUNTAIN TIMBER SALE - PLANNED UNIT CARD

UNIT DESCRIPTION

UNIT NUMBER(S):	541	AGE CLASS:	200+	VCU:	442
MANAGEMENT AREA:	S10	LUD CLASS:	IV	UNIT	90
				ACRES:	
PREDOMINANT SPECIES:	W. HEMLOCK, S. SPRUCE			HARVEST ACRES:	35

UNIT ATTRIBUTES

HARVEST METHOD:	High Lead		
VOLUME/ACRE (NET SAWLOG) (MBF)	17	NET SAW (MBF):	570

MANAGEMENT OBJECTIVES - RESOURCE CONCERNS OR OPPORTUNITIES

FISHERIES:

Anadromous fish habitat may be affected. - Protect fish habitat (BMP 13.16, 05).

WILDLIFE:

Harvest activity will affect beaver habitat. - Minimize the impacts on beaver habitat.

RECREATION SETTING: CURRENT: P AFTER HARVEST: RM

IMPLEMENTATION DIRECTION

VEGETATION:

Manage as a mosaic two or multi-aged stand. Remove the concentrated patches of uneven aged overmature timber while protecting the even aged groups of trees. Approximately one-third (35 acres) of the area within the unit boundary will be harvested. The unit boundary was located over 800' from the LUD II boundary to avoid any potential impacts to the LUD II area.

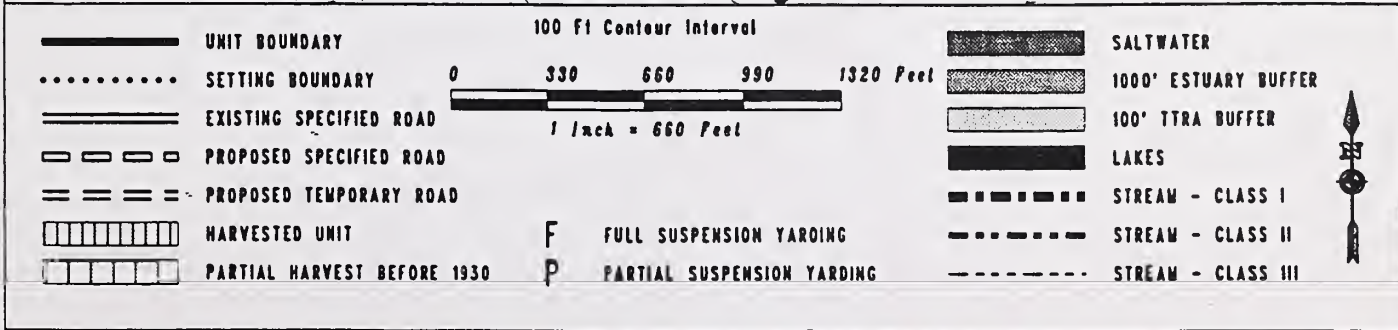
FISHERIES:

Maintain a minimum 100 foot uncut buffer on the west unit boundary, and the tributary on the southwestern boundary. The Class I stream ends at the beaver pond.

WILDLIFE:

Buffer protection of the fish streams within the unit will also act to protect beaver habitat.

UNIT MAP 5B-541



Appendix B

APPENDIX B

PLANNED ROAD DESCRIPTION

PROJECT NAME: *Bohemia Mountain Timber Sale* MGT AREA: *S-10* VCU: *424/442*

ROAD NUMBER: *6031* FUNCTIONAL CLASS: *Collector* ENTRY CYCLE: *Constant*

LENGTH: *10.7 miles* TRAFFIC SERVICE LEVEL: *C* DESIGN SPEED: *20 MPH*

TERMINI: Junction of proposed road 6032.1 (T57S,R76E,Sec.2) to an intersection with an existing spur road. (T57S,R77E,Sec.14).

DESIGN VEHICLE: *Log Truck* CRITICAL VEHICLE: *Lowboy* HIGHWAY SAFETY ACT: *No*

MAINTENANCE LEVELS: (ACTIVE SALE) *3* POST SALE: *2*

INTENDED PURPOSE: To connect the Bohemia Mountain transportation network with the Portage Bay transportation network; providing access to the log transfer facility and for timber and forest administration.

TRAFFIC MANAGEMENT STRATEGY: Keep open for forest administration. Restrict to high-clearance vehicles.

EROSION CONTROL: No unusual problems anticipated on this road segment.

ROAD LOCATION: The main objectives for road location is to keep the road as far back from the Goose Cove estuary at the head of Portage Bay to reduce impacts to estuarine wildlife habitat and to avoid the LUD II lands.

ROCK PITS: Flat topography along most of this segment, little if any quality rock available for road construction. Rock is available along the small ridge that separates Bohemia Mountain and Portage Bay at "G" on map. Consider crushed aggregate, 4 inch minus, from existing pits. Coordinate with the landscape architect on location and access design of rock pits. Consider rehabilitation of rock pits located adjacent to road 6031.

STREAM CROSSINGS: There are six class I/II fish stream crossings. Metal pipe arches are proposed for two small streams; a 40 foot bridge on a small coho salmon stream and a 90 foot bridge to be installed on Portage Creek. BMP's 14.17 and 14.36 apply.

TIMING RESTRICTIONS: Timing restrictions apply only to in-stream work where water quality standards will be compromised. Out-of-stream construction can be conducted outside of "timing windows".

A timing window of June 1, through August 15 will be required during construction of the permanent culverts or bottomless arches and the 40 foot bridge due to the chance that sedimentation from construction will be harmful to Coho salmon egg incubation. BMP 14.64 applies.

A timing constraint on bridge construction at the Portage Creek site which allows in stream construction from July 15, through August 15 is required to protect steelhead trout, pink and Coho salmon egg incubation. BMP 14.64 applies.

PLANNED ROAD DESCRIPTION

PROJECT NAME: *Bohemia Mountain Timber Sale* **ROAD NUMBER:** 6031

FUTURE NEEDS: This segment of road 6031 may contribute to a Kake - Petersburg connection.

VEGETATIVE MGT: No special needs or considerations.

IMPLEMENTATION MONITORING: A basic soil and water review will be conducted to insure application of Best Management Practices (BMP's).

OTHER CONSIDERATIONS: Wildlife biologist input if raptor nests or other important wildlife concerns surface during road location.

Consider Central Tire Inflation or low pressure radial tires where marginal rock quality may cause a breakdown of road surfacing material. BMP 14.84 applies.

SPECIALISTS NEEDED: Landscape architect and Geotech Engineer to plan rock pits. A bridge design engineer and landscape architect to analyze the Portage Creek crossing. The landscape architect's interest is primarily the style of bridge to be used and provisions for parking because of the high potential recreational fishing use.

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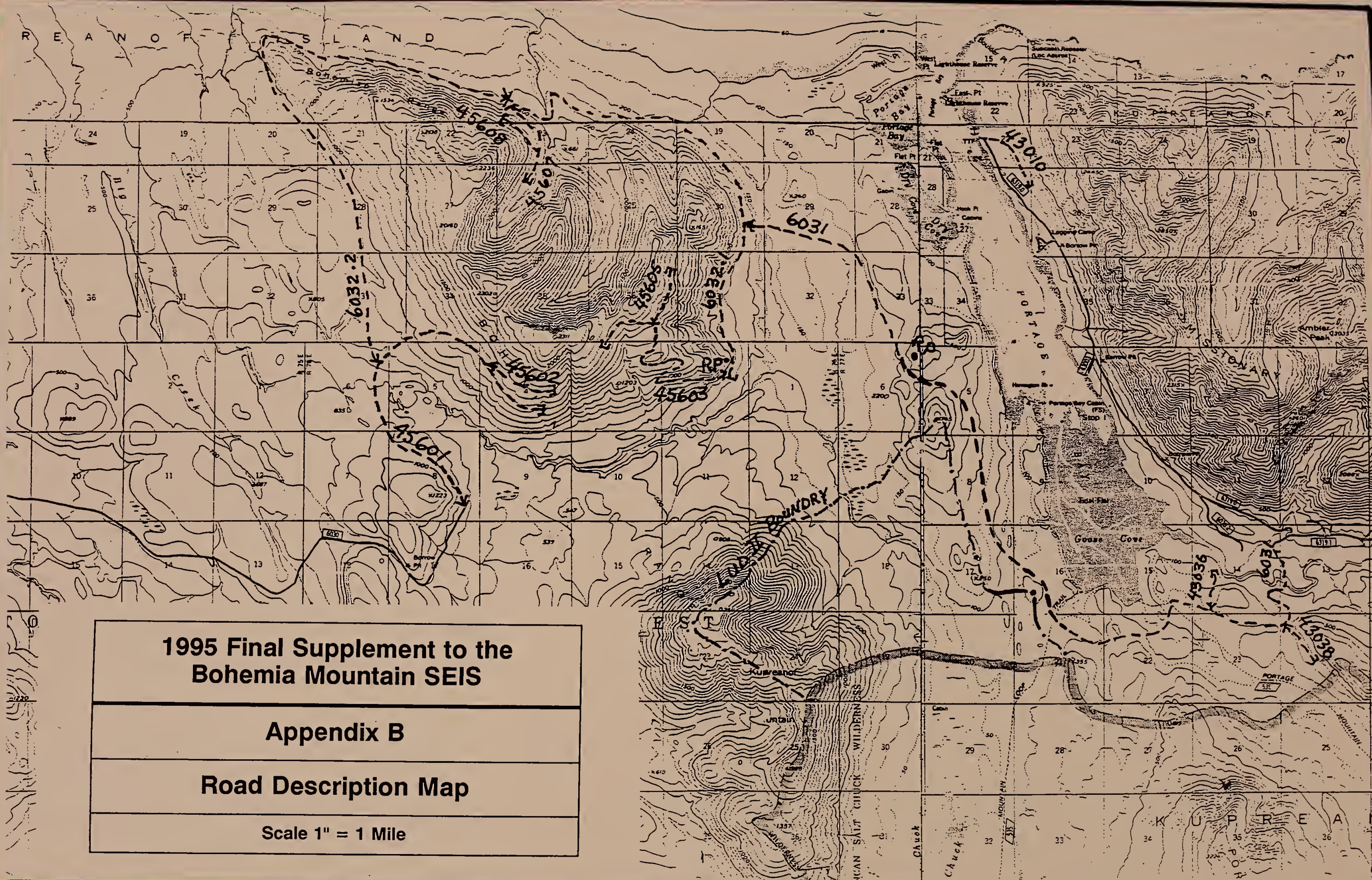
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Appendix C

APPENDIX C

Comments on 1995 DSEIS and Forest Service Response

This appendix includes a copy of each letter responding to the 1995 Draft SEIS. Each comment is numbered in the margin. Following each letter are excerpts of the numbered comments and the Forest Service response to each.

Commenting Person or Group	Page Number
Narrows Conservation Coalition	C-3
Michael Medalen	C-59
Judy Brakel	C-91
Alaska Department of Environmental Conservation	C-95
Ketchikan Pulp Company	C-101
U.S. Department of Interior	C-105
Office of the Governor, Division of Governmental Coordination	C-109
Alaska Forest Association, Inc.	C-115

One letter was received after the close of the comment period. The comments in the letter were considered to the extent possible; however, the letter was not given a formal Forest Service response in this Appendix.

Alaska Lumbermen's Association	C-123
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NARROWS CONSERVATION COALITION

P.O. Box 2130
 Petersburg, Ak. 99833
 Phone (907) 772-2211 Voice and fax

June 12, 1995

Abigail Kimbell
 Stikine Area Forest Supervisor
 US Forest Service
 Box 309
 Petersburg, Alaska 99833

Received

JUN 12 1995

Tongass N.F.

Dear Ms. Kimbell:

Following are Narrows Conservation Coalition (NCC) scoping comments for the Bohemia timber sale Supplemental Supplemental Draft Environmental Impact Statement (1995 DEIS). Narrows Conservation Coalition is a grassroots conservation group of about 75 members based in the cities of Kupreanof and Petersburg, Alaska and the greater Kupreanof and Mitkof Islands. We have been a member group of the Southeast Alaska Conservation Council (SEACC) since 1984. SEACC is a regionwide coalition with 14 member groups in 12 Southeast Alaska communities. NCC and SEACC members represent individuals from all walks of life and regularly use the Bohemia area. We request that all public comments for this sale be published in the Final EIS for this sale and each and every concern expressed and question asked be **specifically addressed** in the draft document. We also request that a complete final document be published that includes all relevant information in **one** document rather than the confusing method in which the public has been forced to cross reference between the various documents for this sale. Numerous omissions and errors by the Forest Service have resulted from this method of analysis.

NCC has twice successfully appealed this timber sale, and it was our hopes that because of this, any subsequent analysis would adequately address all appeal points raised. Unfortunately this has not been the case and we are once again forced to ask for answers to some very valid and relevant discrepancies in the latest Bohemia document. It is quite obvious that the FS only attempted to "fix" with words what they perceived to be technical flaws with the last analysis. We urge you to conduct a thorough and rigorous analysis of points raised in the following comments, which are in many cases a reiteration of points raised in our appeals.

We understand from some individuals within the agency that the intent is only to satisfy the minimum time requirements for comment and possible Bohemia appeal periods, prior to initiation of procedures to offer the sale for bid. We hope this is not the case as we are looking forward to an honest analysis of points raised in our comments.

C Appendix

Background

The Bohemia Mountain Timber Sale has been plagued with troubles, since its inception over fifteen years ago, that continue until this day. The source of most conflicts during this analysis arise from the overriding desire on the part of the agency to build a road connection (Road # 6031), unnecessary for access to timber in the area, between Kake and Portage Bay, and eventually between Petersburg and Kake.

1 { We continue believe that if there are any additional links to the Petersburg/Kake connection, an EIS must be prepared for the full length of road.

1a { Over twelve miles of unnecessary road, more than one third of the total road mileage for the sale, is proposed to be built under the preferred alternative. Roothing of the "isthmus" between Portage Bay and Duncan Canal requires building 10.6 miles of very expensive mainline road through muskeg and lowlands. Also a 1.8 mile spur to access marginal timber in unit 541 would be constructed! In addition, the road compromises some of the most productive fish and wildlife habitat in the area. The Forest Service has continually attempted to deceive the public concerning the real purpose and need of this project. The only purpose for this particular stretch of road is for National Forest administration, not removal of timber, as the current and previous EIS's claim. As the IDT leader acknowledged a few years ago, "This road project is a "project unto itself."

The Preferred Alternative also unlawfully, negatively impacts every other resource in the area including fish, wildlife, recreation, aesthetic, and some of the last productive habitat for deer close to subsistence communities. It is apparent that the Forest Service is so busy "getting the cut out" that they have no real interest in doing a good analysis that leads to a good decision. Why you want to build an expensive road through a highly sensitive area such as the "isthmus," for unnecessary administrative purposes is beyond us.

2 { Majority of Public Comments Not in Favor of Building Road 6031

Strange as it may seem, Narrows Conservation Coalition, Alaska Forest Association, and Ketchikan Pulp Corporation all agree on one point concerning this timber sale: All are on record in opposition to construction of Road 6031!

The idea that Road 6031 is needed for " administrative purposes" is ludicrous at best. If you read KPC and AFA's comments you would realize that the timber industry doubts the economics of the sale will allow anyone to feasibly log in the Bohemia Range if Road 6031 is included in the sale. NCC representatives have flown into the Bohemia range and walked in the study area. Any rational human being would question the idea that the economics of any sale in such poor quality timber could ever be feasible.

In a letter by Troy Reinhart of Ketchikan Pulp Company, obtained from the Bohemia Sale file with a FOIA request, he states "It seems every time another supplement is written on Bohemia Mountain, the timber harvest economics get worse instead of becoming more economically realistic." Mr. Reinhart goes on to say "Offering a *seemingly* high-volume timber sale while ignoring the *economic realities* of harvest operations is not a particularly meaningful way to satisfy the TTRA requirement; this proposed sale would fall far short of realistically meeting the needs of the dependent timber industry."

"Maybe a more realistic way of looking at this sale would be to divide it into two sales by 1) hauling the volume from the west side of Portage Bay to Little Hamilton Bay LTF and 2) hauling the volume east of Portage Bay to the Portage Bay LTF, thus eliminating miles of unnecessary road construction ." (emphasis added).

A nearly identical view was put forth in a letter from the law firm of Robertson, Monagle & Eastaugh, lawyers for the Alaska Forest Association, in a 3/11/94 letter to Michael Barton in comments as interveners on the second Bohemia Range appeal.

"The AFA agrees with appellants on one of their major points: that Road #6031 should be deleted from this timber sale. Inclusion of Road #6031 is one of the major reasons why this timber sale is uneconomic as designed, and its removal also would alleviate several problems raised by the appellants."

The AFA comments concluded; "The AFA has suggested redesign of the Bohemia Mt. Timber Sale, and splitting it into two separate sales, to be held simultaneously and without significant delay. While our foremost objective is to make the sale economically viable (primarily by deleting one major road and one shorter road), there would also be some environmental benefits, *chiefly from the deletion of road #6031.*" (emphasis added). } 2a

Mitkof Lumber Co. also had expressed similar concerns about the economics of this sale at an earlier date.

Obviously, alternatives other than the preferred meet the purpose and need of the project or they too would have been eliminated from consideration. Of these, Alternatives 3 and 4A meet the "purpose and need" of the project and do not construct road 6031. Therefore, road 6031 is not required to meet the purpose and need of the project.

Need for Road 6031 Not Clearly Demonstrated

} 3

If harvesting the most amount of volume were the only consideration, then road 6031 could have been extended from the Bohemia Mountain side just far enough to pick up the volume from Unit 541 (which was added to Alternative 5B following the

C Appendix

DSEIS). Likewise, Units 535, 536, and 537N and 537 at the head of Portage Bay could have been accessed with a relatively short extension of road 63190. Thus, there is no clear need demonstrated for construction of this road.

Log Transfer Facilities are available in Portage Bay and near Kake eliminating the need to cross the highly sensitive area at the head of Portage Bay, the Portage Mountain Loop Trail, and the important wildlife corridor which parallels the road across the "isthmus". Consideration of these other alternatives would have demonstrated that construction of road 6031 across this sensitive area is not necessary since logs can be hauled to salt water without the need to cross the isthmus. In fact, other alternatives exist which satisfy the "purpose and need" of the project by providing 10 to 40 million board feet of timber and do not impact this area.

Perhaps forest administration is possible along this proposed road, but where is the analysis that demonstrates a need for extensive FS administration in the Bohemia Area that justifies the expense of road 6031?

Timber Sale Economics

4 { Although the FS cites (at 1-2) recent market assessment for the independent sale program by Morse (May 1994) as an indication this particular sale would be in demand by independent purchasers, is in error in regards to timber in the Bohemia Range. Timber in the Bohemia Range is of such small size and poor quality that aside from a few yellow cedar there is very little saw quality timber there. In general the timber will be too small to fit the barkers at wood chip plants in Southeast Alaska which are made for larger timber. Several million board feet of timber from the adjacent Todahl timber sale were too small to be barked at the Haines mill.

4b { We would like a compilation of all costs incurred by the USFS studying the Bohemia Range Sale since 1989, including transportation costs, boarding costs, administration, and IDT team salaries. As concerned taxpayers we would like to know how much of our money has been spent on this fiasco.

4c { Perhaps it would help if you would explain to the public why you want to spend large amounts of their money to access a sale that the timber industry considers uneconomical in the form that you want to sell it to them. At the same time you could explain why you spent \$3,000,000 over a decade ago to access the same area from the opposite direction for a sale of similar low volume and quality timber that never sold. Wasn't part of the rationale for building the "Road to Nowhere" from Kake into the Bohemia Range to access "future" timber sales? How can the Forest Service justify the construction of all those miles of road if the Forest Service plans to haul most of the timber from the Bohemia Range to the Portage LTF? Please clearly explain this in the 1995 FEIS.

The "Purpose and Need" Of The Bohemia Project Is Not Clear.

} 5

It is a most amazing metamorphosis that the purpose and need of the Bohemia sale has under gone over time. There doesn't appear to be any butterflies emerging though. The floating "purpose and need" of this project would make a contortionist proud.

The original "purpose " of this project was to locate and design a timber sale for an independent purchaser in the Bohemia Mountain area on North Kupreanof Island and also determine the suitability of Duncan Salt Chuck Creek for inclusion in the Wild and Scenic River System. The original "need" was to supply timber volume from the Tongass National Forest to independent industry, and, at the same time, to protect the appropriate natural resources for the enjoyment of future generations. (DEIS 1-1).

However, the purpose and need changed sometime following the appeal of the 1991 Bohemia FEIS and ROD and the withdrawal of the ROD. The new "purpose and need" indicated in the DSEIS (1-1) "is to make available 10 to 40 million board feet of timber to the independent timber sale program... and to provide long term transportation needs for National Forest administration, motorized recreation, firewood gathering, and access to the area by local residents." (DSEIS 1-1).[emphasis added].

Now the purpose and need has been "refined" again to include roads to "provide for long-term transportation needs for National Forest visitors and administration".

The Re-Revised Notice of Intent for the Bohemia 1995 DEIS published in the Federal Register does not indicate the latest change in purpose and need of this sale, nor did the Revised NOI. No mention is made of a need to build long term transportation networks for administrative purposes and therefore the public has **never** been properly notified of any change in purpose and need. You should refer to the guidelines sent to the Stikine Area by Michael Barton on 4/11/94 to find out about this and other omissions in your Revised NOI. According to that letter, Mr. Barton states: "The NOI's need to clearly describe the nature and scope of the proposed action, issues, and alternatives, the scoping process to be used, and needed permits or licenses." Apparently these recommendations have been ignored.

Long Term Transportation Needs?

} 5a

We are curious exactly what the long term transportation "needs" for forest visitors and administration are. If this particular project wasn't tied to a timber sale , one could easily conclude that this is really just another big road construction project. The proposed convoluted roading indicates the "need" is the basis for the action. Where are these needs documented? According to NEPA guidelines a full range of alternatives for meeting these needs should be included in any EIS prepared for this

C Appendix

sale. This is so far lacking in the EIS. Where is the analysis for meeting these so-called needs?

If the Forest Service continues to propose a road system to provide for long-term transportation needs then we expect to see rigorous analysis and documentation of those needs, to provide a rational basis for FS decisionmaking. Please do not simply provide an off-the-cuff list of some of your "administration" activities. For instance, information should be provided that would demonstrate that construction of all these miles of miles of mainline road are actually warranted given the number of times per year forest visitors and administrators use the area. Please provide this information as well as other relevant documentation of a need for this road. Likewise documentation should be provided in the planning record and FEIS that supports the rational behind selection of the 1995 DEIS preferred alternative.

6 { TLMP 1985-86 Management Direction Is Not Set In Stone

The purpose and need for this project is tied to "goals of the Forest Plan" from ten years ago. The FSEIS indicates that the "Amended Winter of 1985-86 TLMP states that the Kake-Portage Road is expected to pass through this area." It should be kept in mind that the selection of an alternative that does not build a contributing "link" to the Kake-Portage road does not foreclose on any future opportunity to build the Kake-Petersburg connection. However, simply because Forest Service planners identified a Portage/Kake road connection 10 years ago, such identification does not mean it is cast in stone, or that this particular section must be built now. In fact, the TLMP 1985-86 (at 17) specifically indicates:

"The Management Area activities schedules and management direction/emphasis statements represent what Tongass managers *currently envision* for the remainder of the Plan's life (1985-1989) and for the beginning part (i.e., 1990-1994) of the Future planning period. Inclusion in the schedule ***does not necessarily mean an individual activity will be implemented.*** Further analysis, future budgets, and future demands and markets for the Forest's goods and services will determine which activities will be implemented." [emphasis added].

And so, the times have changed. We now have numerous new studies and reports, (ie. Interagency Viable Population Committee Report (VPOP), Anadromous Fisheries Report, Congressional mandates like TTRA, wild and scenic rivers studies, and new agency direction requiring reductions of deficit timber sales, and the use of clearcutting. Road locations drawn on maps 10 years ago are no longer relevant in light of this new information and direction.

Many of the appeal points remain unaddressed. For all intents and purposes the Forest Service simply satisfied the formality of issuing another EIS and has not meaningfully respond to most of the appeal points.

An Area Analysis Is Required By TLMP

37

The "Purpose and Need" section of your document indicates that the FSEIS is tiered to the current Tongass Land Management Plan (TLMP), Amended 1985-86, and the Tongass Land Management Plan Revision, Supplement to the DEIS. (FSEIS 1-3). The 1985-86 TLMP Amendment sets forth a well defined mid-level planning process, the Area Analysis process, which is intended to provide planners with the critical data and analysis necessary for linking the programmatic planning direction in the 1979 TLMP with on-the-ground project planning. In conducting this mid-level planning analysis, the 1985-86 TLMP Amendment (p.199) directs the Forest Supervisor to "follow the NEPA process, provide opportunity for public comment, and conform to Regional and National Forest Service direction."

Apparently, the agency chose to gamble that the proposed TLMP revision would be approved before completion of the Bohemia planning process. Although the Forest Service has issued two "draft" TLMP revisions, it has never formally amended the 1985-86 TLMP requirement that an Area Analysis process be completed prior to implementing any short term timber sale projects on the Tongass. The Amendment is therefore the only valid management direction currently existing for the Tongass. The agency decision to ignore governing forest management direction harms the public because, by ignoring the mid-level planning step, the Forest Service failed to consider how "other resource management needs influence alternative total timber sale layouts..." See TLMP Amendment 1985-86, at p. 209.

An Area Analysis Requested By The Public At Subsistence Testimony

37a

At this time, three timber sale offerings on Kupreanof Island are under active preparation: the Shamrock, South Lindenberg, and Bohemia projects. These projects propose to harvest timber volumes in excess of 200 MMBF in the next three years. The 70 MMBF Douglas sale was put "on hold," not canceled, in the Federal Register. Not only is the Forest Service required to conduct this essential mid-level planning process prior to these site specific projects, but numerous individuals who testified at subsistence hearings for this timber sale repeatedly pointed out the need to conduct an area analysis. See Bohemia Subsistence Testimony for Kake/Petersburg, September 1/2, 1993.

Need For An Area Analysis Pointed Out In Shamrock DEIS

In addition, the Shamrock DEIS analysis pointed to such a need. Although the Bohemia FSEIS or 1995 DEIS did not acknowledge the need for an area analysis, review of the Shamrock DEIS repeatedly indicates the need for a "larger scale" analysis of Kupreanof Island to assess cumulative impacts from the numerous past, present, and future timber sales. For instance:

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1. *"A landscape scale plan for biodiversity on Kupreanof Island... is important to preserve the option of having an HCA that would include much of the Shamrock area."* (Shamrock DEIS 4-43).
2. *"Mitigative measures for biodiversity in the Shamrock area must be implemented within the context of long term harvesting over the entire island."* (Shamrock DEIS 4-41).
3. *"Effects of this sale would be representative of the many smaller scale actions that would contribute to landscape level effects" and "cumulative effects should be examined on the scale of Kupreanof Island as a whole."* (Shamrock DEIS 4-39).
4. *"The cumulative effects of public access are best addressed on a larger unit of scale, such as groups of watersheds."* (Shamrock DEIS).
5. *"Impacts to biodiversity are best addressed in the context of cumulative effects on an island wide basis."* (Shamrock DEIS, summary iii).

Since the development of this analysis has already been initiated on Mitkof, it was explained that the Stikine Area would complete that analysis prior to initiating one on Kupreanof Island, simultaneous to other timber sale planning processes, and that neither analysis would issue a decision.

While we applaud the FS. for taking steps to complete an area analysis on Mitkof Island, the FS **must** include Kupreanof Island (as well as the entire Stikine Area) in an "Area Analysis" and issue a decision consistent with existing TLMP direction **prior** to site specific EIS's. According to current TLMP direction "The Forest Supervisor's decision completes the Area Analysis process for short-term timber sales." (TLMP, Amended 1985-86, p. 210). Not only does the preferred alternative violate agency direction, it simply does not make sense to delay the Kupreanof analysis, especially considering the immediate level of proposed harvest.

Regardless of the legal requirement to conduct an area analysis on Kupreanof, isn't there an **ethical requirement** considering all the agency and public comment to conduct one?

Unit 541

8 { According to the EIS Unit 541 was added in response to the State's request to avoid long stretches of road without sufficient volume. Instead of deleting over ten miles of unnecessary mainline road 6031, the Forest Service added unit 541 along this stretch with a 1.8 mile spur to access it off the mainline road. The addition of this

unit was not logical, since, if the intent was to avoid long stretches of road without sufficient volume, then there should have been an alternative that considered an extension the Bohemia Mountain road #6032.1, 2 to 3 miles, in order to pick up the volume from unit 541. Or better yet, why build the expensive additional 10.6 miles at all, to access only 570 MBF of low quality timber contained in unit 541?

} 8 cont.

Please identify where in Unit 541 the "small patch clearcuts" are located. Also what contributed to the "advanced natural regeneration" existing in Unit 541? Was this a result of windthrow? If so, what evidence does the Forest Service have that such blowdown will not occur again as this stand of timber is opened up through timber cutting?

} 8a

There is an apparent "blind lead" located at the south end of unit 541 spur road.

} 8b

Why are there no Class II streams depicted on the unit card? Class I streams don't normally appear out of a seep in the ground as depicted on the unit card.

} 8c

Please identify where the beaver habitat is located in the unit.

What assurance does the public have that no commercial timber will be "felled into the LUD II area" as implied on the unit card for this sale? Are the boundaries of the LUD II area surveyed? If not, why not?

} 8d

"Future Spur"

In our investigation of the planning record obtained by FOIA request, there is a copy of a topo map showing the revised 6031 road where it was routed around the LUD II area. On that map the spur road to unit 541 is a dashed line labeled "future spur". If road 6031 is part of the same sale as unit 541 how can they be concurrent if unit 541 is to be accessed by a "future spur"? Perhaps the Forest Service realizes that the low volume and poor quality of the timber in unit 541 and even in the Bohemia range itself is not considered desirable by the timber industry. We do not believe that the Forest Service is acting in good faith when they plan a road around a sale they already know, from industry sources, probably won't sell.

} 9

What is the possibility that the Forest Service will pre-road mainline road 6031, prior to offering the Bohemia side of the sale and in effect get their much sought after road segment? We envision such a situation.

} 9a

Subsistence

310

We were very distressed that that exactly the moment subsistence deer hunters can once again return to this area, following an 18 year closure, the Forest Service proposes another huge timber sale. Due to the almost complete devastation of deer habitat around Kake this area will be very important for subsistence users,

} 10a

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especially those from Kake. Further, the 1995 EIS uses the rationale that wholesale degradation of the subsistence deer resource in the entire area is warranted since it has been determined that a restriction to subsistence use of deer exists in part of the area. An alternative should be selected that minimizes impacts, as well as real mitigation measures, which may in turn effect bag limits and the length of future hunting seasons.

The Restriction To Subsistence Use Of Deer Is Not "Necessary And Does Not Use The Minimal Amount Of Public Land"

10b { We agree with the finding that there may be a significant restriction of subsistence use of deer in the area. However, the findings that are necessary to justify this restriction are not supported by the record. First, the restriction is not "necessary" under ANILCA Section 810 (a) (3) (A). None of the various laws, plans and guides cited in any document related to this sale require the Forest Service to offer any particular amount of timber through independent timber sales. Thus, any restriction of subsistence uses is not necessary, because the Forest Service is not required to sell timber.

10d { There is no mandate to harvest timber anywhere on the Tongass. In fact, the non-mandatory nature of timber harvest on the Tongass is supported in the Forest Service's own September, 1994 "Interim Habitat Management Guidelines for Maintaining Well-Distributed Viable Wildlife Populations within the Tongass National Forest", Draft Environmental Assessment, which states specific habitat management standards are:

"left to the project planning, scheduling, and implementation phases of the Forest Plan implementation. The current Forest Plan **does not require** timber harvest or other projects to be implemented anywhere on the Tongass National Forest; the land allocations authorizing timber harvest in various areas of the Forest are **permissive, not mandatory** (Tenakee Springs et al. v. Block et al.)." [emphasis added].

10e { Second, the preferred alternative does not use "the minimal amount of public lands necessary" to accomplish the timber sale, as required by ANILCA section 810 (a) (3) (B). In fact, to the contrary, the Forest Supervisor selected the alternative with the largest amount of land. The preferred alternative will cut 1,381 acres, while the other action alternatives ranged from 339 to 1,346 acres and the no-action alternative had zero acres. Thus, the preferred alternative does not use the minimal amount of public lands, but rather uses the maximum amount. For the same reason, the preferred alternative does not "minimize adverse impacts" as required by Section 810 (a) (3) (C). This violates ANILCA.

In addition, public comment in response to all EIS's for this sale weighed heavily in favor of maintaining environmental quality. With this in mind, it is

unreasonable that an alternative which fulfills the purpose and need of the project and was the environmentally preferred action alternative, was not chosen.

Please clearly explain in the FEIS how the Forest Service can ignore it's legal responsibility to address these vitally important points.

Past Land Use Activities Do Not Account For Any Restriction To Subsistence Resources

According to the 1993 ROD (at 18) the possible restriction to subsistence use of Sitka black-tail deer in the project area will take place because of past land use activities. Supposedly, the restriction to subsistence use of deer will not occur on Bohemia Mountain (WAA 5135) because "the demand for deer will exceed carrying capacity by the year 2005." According to the FSEIS (at 4-16) the current habitat capability in WAA 5136 (east side of Portage Bay) is below that needed to meet the historic demand of 1960-1968. (FSEIS at 4-25). However the only other two timber sales that clearcut on the east side of Portage Bay were the Missionary Timber Sale and Mitkof/Kupreanof Small Timber Salvage Sale. The Missionary Timber Sale Environmental Analysis (EA at 27) indicates that "the proposed action would not result in a significant restriction to subsistence uses or resources." The 13 MMBF "Mitkof/Kupreanof Small Timber Salvage Sale" ROD indicated the proposed action "will not have a significant impact on subsistence use of resources." Perhaps the reason that predicted habitat capability numbers resulting from previous timber sales differs from what was initially expected, is due to differences in the use of the TIMTYPE versus TIMCLU databases as discussed below. We understand that the ROD for this sale was reversed, however it is likely that similar flawed rational will be used in the next ROD. We urge you to avoid using such flawed rational.

10 f

In a trip report to the Bohemia Area, Joe Doerr, Forest Service wildlife biologist, expressed doubts that the habitat capability of the entire study area is greater than hunter demand: "I have made attempts to estimate this demand in the past, and believe that the present demand for deer hunting in this portion of Kupreanof approaches or exceeds the current habitat capability of the study area."

It appears that the Forest Service manipulated figures used to arrive at a subsistence determination only to justify their goal of harvesting the greatest amount of timber. The Forest Service never acknowledged any restriction to subsistence use of deer from previously clearcutting the east side of Portage Bay, and then after the fact they claim that these same activities resulted in a restriction to subsistence use of deer in order to justify more habitat destruction by the Bohemia sale.

If the Forest Service decides on another timber entry (before 2005) on Bohemia Mountain, or anywhere else, where they claim there was previously "no restriction to subsistence," will they apply the same "after the fact" logic to restrict subsistence use of deer?

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Impacts On Subsistence Have Not Been Minimized.

10g { The Forest Service has claimed that "impacts to subsistence use have been minimized through the development of individual harvest units and road corridors..." To call what's left after logging, mitigation for wildlife, is ridiculous. There is absolutely no basis for the claim that design of individual harvest units mitigate the impacts to subsistence use. It has not been demonstrated wildlife will even be able to effectively use the 100-foot TTRA stream buffers or "travel corridors" left between the cutting units. They may or may not be adequate for protection of fish habitat but they are probably not adequate to maintain movements of at least some wildlife species. Such a strategy has a low likelihood of maintaining viability and distribution.

NCC and ADF&G have repeatedly requested that Units 537 and 538 be deferred from this sale due to concerns for the wildlife travel migration corridor. In comments on the FSEIS, ADF&G wrote, "Considering that nearly all of the units on the east slope of Bohemia Mountain are wholly or partially located in mapped high-value deer winter range as are all units below 800 ft. elevation on the east side of Portage Bay, we don't believe the deferral of two units in important deer winter range is unreasonable." We agree!

Another area of serious concern is the "isthmus" area around the head of Portage Bay which serves as a major wildlife travel corridor. Although the redefinition of "estuary" resulted in a 1000 ft. setback from the Portage estuary, this road could have been dropped altogether, and still meet the purpose and need of the project, as discussed above. The roading of this area was a major appeal point of in the original Bohemia appeal and continues to be of serious concern.

Although the Portage road system will not be immediately connected to communities, its construction will contribute to the Kake-Petersburg connection, increasing the potential cumulative impacts to marten, waterfowl, black bear, deer etc. Effective mitigation such as road closures, and hunting and trapping closures similar to those proposed at the Green's Creek Mine should be implemented. This was requested by several individuals at the recent subsistence hearings for this sale. What is your problem with addressing this point?

10h { In addition, a March 6, 1989 Wildlife Resource Report for the Bohemia project included in the planning record, indicated, "an area of special concern regarding road traffic is the lowland muskeg area on the north and east side of the Bohemia Range since it bisects two major deer wintering areas." There was no discussion in the FSEIS reflecting this concern, therefore the Forest Service has failed to disclose sufficient information to support its claim that roading this important area has been minimized.

Subsistence Hearings

There has been no acknowledgement of several concerns raised at subsistence hearings for this sale. Such absence of discussion of the subsistence testimony is unconscionable. In fact, a review of the planning record by NCC representatives, reveals absolutely no analysis pertaining to the ANILCA public hearings held in Petersburg and Kake. The last document included in the planning record pertaining to Bohemia subsistence testimony, "Subsistence Resource Inventory Report," was dated April, 1993, four months prior to the public hearings. How can the public be assured that subsistence testimony was considered or analyzed in the absence of any analysis? This is especially distressing given the highly irregular way the subsistence determination was arrived at in the first place, as described above.

In fact, some concerns expressed at the hearings, which may or may not relate to subsistence have not even been acknowledged in any EIS such as concerns over increased wolf predation, cumulative impacts to subsistence use of deer forest-wide, timing of subsistence hearings, PACFISH, adequacy of buffers etc. During the subsistence testimony Lonnie Anderson, the Mayor of Kake, expressed somewhat of a reversal on former positions regarding the sale. The failure to adequately disclose, consider, or analyze this testimony, is in direct violation of Section 810 of ANILCA and NEPA.

A total of 5 people testified at the subsistence hearings for this sale in 1991. A little over two years later 14 people testified at the subsistence hearings for this sale. All but one individual who testified in 1993 expressed serious concerns about subsistence restrictions. This exponential increase in attendance at the Bohemia subsistence hearings corresponds directly to the highly contentious "necessary" restrictions to subsistence users on nearby lands. Cumulative impacts have been and continue to be a concern that has not been addressed in any approved Forest Plan to date.

Table 2-13 and 2-12 In Error

Table 2-13 contradicts the subsistence section in Chapter 2-2 which states: "There *would be increased access* to the Bohemia Mountain Area from the Portage Bay logging camp and *more competition* for subsistence resources. Habitat for some subsistence resources may be affected." However Table 2-13 indicates no possibility of significant restriction of subsistence use of deer in any alternative for competition or access. As we have continually pointed out through the years, there will be a significant restriction of deer and possibly other subsistence resources for subsistence users. We agree with the statement in Chapter 2 and urge you to correct Tables 2-12 and 2-13 to comply with this language.

The Preferred Alternative Seriously Threaten Future Economic Opportunities on Kupreanof Island

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11 { While the rest of the nation and world are facing a dwindling supply of wild areas, the abundant natural beauty and wildlife of Southeast Alaska make it an ever increasing destination for tourists. Wilderness areas alone, however, can not fulfill the demand for wild and scenic places to recreate. As a legitimate multiple use, recreation stands equal to timber harvests on non-wilderness lands. The Forest Service's responsibility to treat recreational and tourism uses of the Tongass as controlling, co-equal factors in forest management is required by both NFMA and the TTRA.

Congressman George Miller, chief architect of the TTRA, elaborated on the purpose of the TTRA when he sought House agreement on the TTRA's Conference Report. In reference to Section 101 of the TTRA, amending Section 705(a) of ANILCA, Congressman Miller states:

"This language requires the Forest Service to meet the needs of resource based industries other than timber--including commercial fishing, sport hunting[,] sport fishing, and tourism--and provide for non-commodity uses of forest resources for subsistence and recreation....

"The net effect of section 705(a), as amended, is to assure Tongass planning and management does not give timber harvest priority over other uses of the national forest. Given the overwhelming sense of Congress that the Forest Service has mismanaged the Tongass, the burden is now on the agency to prove that it can be responsive to the changing public view of how--and for what purposes--this forest should be managed. The era of preferential treatment for a single commodity, timber, is over." 136 Cong.. Rec. H12833 (daily ed. Oct. 26, 1990).

These statements clearly indicates that the intent of Congress in passing the TTRA was to create balance among equally deserving forest values.

11 { The Bohemia timber sale planning record is replete, however, with evidence that the Forest Service in Region 10 continues to treat timber as king on the Tongass. The reduction of semi-primitive non-motorized (SPNM) recreation opportunities and increase in "roaded-modified" recreation opportunities in the preferred alternative (FSEIS at p. 4-34) demonstrates the agency's inability to manage Tongass lands on Kupreanof for any objective other than fulfilling Region 10 timber targets.

11a { The Forest Service tries to downplay the effects of changes in the Recreation Opportunity Spectrum by claiming that "users who currently value this area of North Kupreanof for its primitive or semi-primitive nature *could* be displaced if an action alternative is selected " [emphasis added]. These users *would* be displaced. In fact, the Forest Service's own recreation specialist, Mary Clemens, acknowledged this concern during an IDT meeting where she expressed "concerns with unit 538 being right next to the trail." This unit however was not deleted from the preferred alternative. Unit cards (FSEIS Appendix A-69) indicate Unit 538 is also "highly visible from the

trail yet the only modification the IDT offered was to reduce the size of the unit. However, this was done in response to concerns from wildlife biologists, not recreation specialists, in order to partially preserve the travel corridor contained in the unit for wildlife. This unit should have been deleted entirely, not only for wildlife concerns, but also for recreation concerns.

} 11a
cont.

In notes from a 9/15/91 telephone call record it was noted that Mary Clemens expressed concerns that the Kake /Portage road connection should not be built "because it has the greatest amount of impact on the wilderness and she doesn't feel it will benefit recreation." Although the preferred alternative will not build a "connection" the impacts on the wilderness are the same.

} 11b

More amazing, is the claim that a "spectacular waterfall" on the southwest side of a unit on the east side of Portage Bay "may provide a recreation opportunity. A trail could be constructed from the existing road to this site." (Appendix A-51). Changes in the potential recreational experience are completely destroyed with the presence of an 87 acre clearcut surrounding this beautiful waterfall. If the agency had given the recreational experience equal value as timber production, they would have eliminated this unit from consideration since spectacular waterfalls are rare in the area.

} 11c

A recreation report for the Bohemia Mountain Analysis Area, Feb. 18, 1991 acknowledges, "Changes to the physical setting include increased impacts to the resource, particularly muskeg areas and the presence of humans from increased litter, fire-rings, and structures. Increased access will also likely result in increased presence of regulatory agencies and authorities, such as the Forest Service, resulting in losses of perceptions of freedom and uninhibited behavior." Given the level of degradation to recreation places on the Tongass, the idea that users can simply shift to other parts of the forest is untrue and unsupported by meaningful analysis.

} 11d

Demand for roadless recreation has increased dramatically in the last few years, particularly in the lower 48 as use of roadless areas has reached the saturation point. As this demand increases locally, from visitors seeking primitive recreation such as hiking, areas providing this experience will become taxed. The primitive recreation experience offered by the Petersburg Creek/Portage Bay/Duncan Salt Chuck/Ohmer Slough/Coho Creek Loop Trail will increase in importance dramatically as it offers the longest hiking trail south of Skagway in Southeast Alaska. Also it is the only trail of that length that a person can walk back to the place they started without walking the same ground twice.

} 11e

Recreation and tourism is a vital segment of the economy in Southeast Alaska. The Alaska Visitors Association, an independent non-profit "chamber of commerce" for tourism-related businesses, studied the tourism economy of Alaska and reported its findings in a 1993 publication called Destination Alaska: Strategies for the Visitor Industry. The following excerpts from this publication describe the scope and

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importance of Alaska's recreational and tourism economy:

"Future opportunities for expanding visitation to Alaska are primarily associated with its natural environment, its cultural resources, and the vacation experiences that access to these resources offers. Increasing Alaska's capacity for added outdoor recreation through "eco-tourism" will be less costly than expanding other arms of the visitor industry. However, this service-oriented natural resource dependent form of tourism will require more coordination and collaboration between the public agencies and the visitor-serving business community.

"The Alaska visitor industry is one of the most significant industries in the state. Among private industries in Alaska, the portion of the visitor industry attributable to non-resident travel is second in terms of employment, exceeded only by the seafood industry. Pleasure travel ranks third in terms of the total associated payroll after seafood and oil production.... The visitor industry is significant for the economies of all regions within the state....

"Annual average employment attributable to vacation/pleasure visitors amounts to 10,300, not counting those self-employed.... Visitor-related employment generated \$244 million in payroll in 1990. Gross revenues to the Alaska general fund generated by the visitor industry are a minimum of \$31 million annually, with an additional \$20.7 million going to the Alaska Railroad and Alaska International Airport System."

1f { The City of Kupreanof has expressed interest in the Petersburg Creek/Portage Bay/Duncan Salt Chuck/Ohmer Slough/Coho Creek Loop Trail. They anticipate implementation by their citizens, of cottage industries that are tourism related such as bed and breakfast inns, outfitting and guiding services, and transportation services that are primitive recreation and low impact related. They believe that the trail system, in its presently unroaded state, offers an invaluable attraction from the overflow of recreational hikers and congested wilderness hiking areas in the lower 48.

11g { Impacts to recreation and tourism opportunities from the activities proposed in the 1995 preferred alternative seriously harm the members of the recreation and tourism industry who rely upon intact natural areas. The number of outfitter/guides on the Stikine Area and forestwide has increased exponentially in the last few years. Roving across and along the loop trail should not be done for merely "administrative purposes." If this preferred alternative is approved, the Forest Supervisor will not have fulfilled her responsibilities under NFMA and the TTRA by insuring that these valuable renewable forest resources are protected and maintained. It would further violate NEPA by failing to adequately disclose and analyze the cumulative effects of past, present and proposed timber development activities on national forest and private lands adjacent to the project area and what impact this particular sale will have on future recreation growth.

Any conclusion that this timber sale project is consistent with TLMP will be

incorrect. The 1985-86 TLMP Amendment clarifies (at p. 2) that TLMP's goal for the recreation resource "is to provide a **broad spectrum** of recreation opportunities with emphasis on maintaining natural areas with the highest wildlife, sport fish, and dispersed recreation assets." Since 1975 over 100 miles of new permanent road have been constructed on Kupreanof Island (Shamrock DEIS 4-88), 50 miles of which is in the Portage Bay network. (FSEIS 3-39). There have been no studies that demonstrate a demand for more "visitor" oriented roads. Considering the amount of current roads on Kupreanof Island in proportion to it's resident population, there is more than ample opportunity for roaded recreation for many years to come without additional roads. The selection of the preferred alternative has no intention of providing the "broad spectrum" of recreation opportunities in this project area as required by TLMP. } 11h

Finally, we wish to address the misleading discussion regarding the value and demand for roaded recreation opportunities in the FSEIS (at 4-34). Implicit in that discussion is the conclusion that recreation use in the area will be increased because of the increased access provided by the expanding road system. Such a conclusion is unsupported by meaningful data. For instance, funds for maintenance on local forest roads are inadequate to maintain safe conditions. Funds are not available to maintain even the highly used road system on Mitkof Island and resulted in the closure of a portion of the Three Lakes Loop road for many months during 1993. The Forest Service cannot possibly expect to maintain the little used roads in the Portage Bay Area in safe condition for roaded recreation, let alone additional roads in that area. } 11i

The analysis regarding the value and demand for roaded recreation opportunities fails to disclose the Forest Service policy of building logging roads to lower standards initially and upgrading them as use is intensified. No information is provided the public as to the impacts resulting from using "lower standards," the additional costs of upgrading the roads in the future, or the likelihood that funding will be available to do so. This Regional policy was adopted for one reason: "to reduce the cost of timber harvest activities in Alaska." } 11j

Directives on Clearcutting

As a legitimate multiple use, recreation, wildlife, fisheries and aesthetic stand equal to timber harvest on non-wilderness lands. The Forest Service's responsibility to treat multiple use resources of the Tongass as controlling, co-equal factors in forest management is required by both NFMA and the TTRA. The NFMA restricts the Forest Service use of even-aged logging practices to where exceptional circumstances are satisfied--ie., only when clearcutting is insured to be consistent with the protection of all the forest's natural resources. See 16 U.S.C. sec. 1604(g)(3)(F)(v). The monoculture created by the level of past, present, and future clearcutting in the project area and adjacent lands is contrary to NFMA-mandated biodiversity. See 16 U.S.C. sec. 1604(g)(3)(B). } 12 } 12a

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Despite clear direction from the Chief, Regional Forester, and Forest Supervisor (6/16/94) concerning clearcutting on National Forests, we are surprised this direction has yet to be followed. Clearcutting must be consistent with the Alaska Regional Guide, and the Chief's policy on ecosystem management. In a April 11, 1994 letter from Mike Barton to the Stikine Area Forest Supervisor, Mr Barton states: "the FSEIS indicates a generic prescription for all units, except unit 541. Further in reviewing the unit cards as discussed on page 16 of the ROD, I did not find a clear connection to the Chief's letter on clearcutting and why clearcutting was the selected method." Please provide rational that clearcutting is the optimal means of harvest for this sale in connection to the Chief's 6/04/92.

26 { In addition, the ROD (at 16) claims that "*within the individual silvicultural prescriptions for Bohemia Mountain, a discussion of the alternatives is displayed. Where clearcutting is specified as the preferred regeneration harvest, documentation is provided for the reasons clearcutting is appropriate, and reference is made to the appropriate items in the Chief's letter which apply.*" (ROD at 16). Although the ROD is no longer valid there is still a need to provide the above information. We find nowhere in any EIS, to date, where such documentation occurs. To date there is no basis for concluding that clearcutting the Bohemia area is "consistent with the Chief's policy on ecosystem management."

Monitoring

Repeatedly the FSEIS states that BMP's will effectively assure compliance with state water quality standards and protection of soil and water resources, including fish habitat. See, e.g., FSEIS at 4-11. Implementing BMP's is of critical importance, especially in an area such as the Bohemia project area where intensive land disturbing activities are being applied. The FSEIS, however, fails to provide a reliable assessment of the impacts of logging and road building activities on water quality and fish habitat or make a reliable prediction of the success of prescribed mitigation measures at protecting these valuable resources. Previously, the Forest Supervisor found that "Water quality and fish production are protected through the application of Best Management Practices (BMP's), and that past experience on other timber harvest areas indicate these measures are effective in reducing the impacts of timber harvest and road development and use on water quality and fish habitat." However, the implication that BMP implementation equals standard compliance is unsupported by credible, scientific monitoring information. Please provide that information in the next EIS.

13 { NCC's review of monitoring on the Stikine Area, as well as monitoring reports from the Alaska Region, leads us to conclude that the Forest Service's monitoring efforts are minimal, rudimentary, and uncoordinated. Due to the lack of a comprehensive effectiveness monitoring program, the Forest Supervisor expectation that state water quality standards will be met by implementing BMP's is optimistic,

} 13 cont.

misplaced, and undocumented. Our review of the Bohemia planning record for monitoring efforts on the Stikine Area leads us to conclude that the Forest Service has failed its responsibility under NFMA, the Clean Water Act, and NEPA of reliably demonstrating that implementation of BMP's will not cause impairment of beneficial uses or exceedances of water quality standards resulting from the clearcutting and road building.

} 13a

Where is an explanation of the illegal harvesting activities in the Bohemia Unit 534? According to an April 30, KFSK radio news report, an obviously unqualified Timber Sale Administrator was assigned the job of inspecting the Portage Bay Salvage Sale. It took 3 weeks from the time the TSA first witnessed the illegally cut unit, to realize that it was the wrong one! His appointment resulted in a significant violation. This incident establishes the inability of the Forest Service to manage logging activities in a prudent and responsible manner. The fact that Sealy could operate with impunity for at least three weeks in a proposed cutting unit without any supervision and oversight is atrocious. How many times have Sealy and other companies conducted unauthorized activities which have damaged valuable public resources? Communications by our members with local loggers indicate this was not an isolated incident but part of an on-going problem on the Tongass National Forest. What steps have the Forest Service undertaken to prevent such a blunder from happening again?

Highgrading

The debate in Congress regarding Tongass timber management in the context of the TTRA revealed the great dismay that the American public exhibited towards the Forest Service's "timber first" approach to managing the Tongass. Congressman George Miller, chief architect of the TTRA, elaborated on the purpose of the TTRA when he sought House agreement on the TTRA's Conference Report. In reference to Section 301(f) of the TTRA, Congressman Miller states:

"Section 301 (f) is an important directive to the Forest Service to take any other actions necessary, beyond revising the text of the long-term contracts, to change management practices to be consistent with this section. For example, *high-grading should be stopped, whether by long-term contract holders, or by independent operators.*" [emphasis added]. 136 Cong. Rec. H12833, (daily ed. October 26, 1990).

One of the unilateral changes included under the TTRA Section 301(c) (2) was the "elimination of the practice of harvesting a disproportionate amount of old-growth timber by limiting the volume harvested over the rotation in volume classes 6 and 7, as defined in TLMP and supporting documents, so that the proportion of volume harvested in the classes within a contiguous management area does not exceed the proportion of volume currently represented by these classes within the management area."

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14 { These statements clearly indicate that the intent of Congress in passing the TTRA was to eliminate the practice of high grading, whether by independent contractors or long term-operators. However, according to Table 4-25 (SFEIS 4-45) the preferred alternative will harvest 14% of volume class 6, although this volume class is only present on 11% of the project area. This disproportionate harvest is in direct violation of TTRA. Considering that these high volume stands are important habitat for old growth dependent species such as deer, it is imperative that TTRA proportionality guidelines are followed. Good forestry practice should know no bounds between long term versus independent sale areas. Additionally, since this sale will probably go to one of the long term contract holders, compliance with TTRA must be assured.

14b { It is apparent that the size and shape of the Bohemia project area was chosen to skew statistical timber volume figures as well as providing rationale to construct the road link to Kake from Portage Bay. While much of the timber south and west of Portage Bay is considered commercial Volume Class IV for the statistical purposes much of this timber would probably not be considered Commercial Forest Land (CFL) by an unbiased observer. Much of the timber in the study area on the west side of Portage Bay designated Volume Class IV would actually be classed lower if an honest assessment on the ground was done. The Forest Service has inflated the amount of timber actually available for harvest by including large tracts of lower volume timber thereby giving a false impression of the percentage of Volume Class IV being harvested. This was necessary to give the impression that the Forest Service was not cutting an extremely high percentage of the best timber (mostly volume class IV) in the Bohemia Range in order to better the economics of constructing Road 6031.

14c { In order to determine compliance with provision 301 (c) (2), the Forest Service must have a reasonably accurate inventory method to determine timber volumes. The Forest Service has routinely used timber-type (TIMTYPE) maps in project level planning, however the agency's own studies have shown the TIMTYPE database to be accurate less than half the time. According to the FSEIS (at 3-39) the agency chose instead to use the TIMCLU soil type polygon database to arrive at figures used in determining proportionality, because the FS considered it to be more accurate for project level planning. However, the use of the TIMCLU database is not standardized forestwide. Since there is no agreement on databases, or the running of the models. the agency and others cannot accurately compare predicted effects from one entry to another. As mentioned above, perhaps this is source of the differences in subsistence determinations made in the Portage Bay area.

14d { In fact, ADF&G Habitat Division, expressed serious concerns about the non-standardized use of such databases and the running of the habitat capability models. They concluded the use of the TIMCLU soil type polygons to predict effects on wildlife is inappropriate. This is particularly true since figures used in the subsistence determination for this project relied on this non-standardized database. Use of any

non-standardized database to predict proportionality, effects on wildlife etc. violates Title VIII of ANILCA and TTRA.

National Historic Preservation Act

315

Sections 106 and 110 of the NHPA impose an affirmative responsibility on the Forest Service to locate, identify and evaluate impacts to historic properties which may be impacted by activities proposed in this EIS.

This EIS proposes activities in the Portage Bay/Bohemia Mountain analysis area which are inherently destructive to all historical sites and objects that may exist there. The Forest Service, however, failed to first adequately locate, inventory, or nominate all potentially eligible properties in the sale area under its control before approving this decision. Moreover, the FSEIS failed to disclose and analyze impacts from any of the alternatives on identified significant cultural resources or evaluate proposed mitigation measures which would prevent adverse project effects those resources. For this reason, this the preferred alternative violates Section 106 and 110 of the National Historic Preservation Act (NHPA), NHPA implementing regulations under 36 C.F.R.. § 800, and NEPA. The Forest Service's failure to take the steps necessary to locate, inventory, or nominate all potentially eligible properties causes irreparable harm to the public by increasing the likelihood that irreplaceable cultural resources with sacred value could be impacted. While promising to protect all unidentified sites stumbled upon by the loggers and road builders, the Forest Service provides no data to support its assumption that such management practices will protect resources not yet identified.

Section 106, 16 U.S.C. § 470(f), requires the Forest Service to take into account the effect of their undertakings on historic properties, and provide the Advisory Council on Historic Preservation (Council) a reasonable opportunity to comment on the agency's undertakings. Under Section 110, 16 U.S.C. § 470h-2, the Forest Service is required to conduct adequate surveys to locate "any" and "all" sites of historic values. See *Romero-Barcelo v. Brown*, 643 F.2d 835, rev'd on other grounds sub nom. *Weinberger v. Romero-Barcelo*, 456 U.S. 305.

To meet these requirements, the above processes should run concurrently with the NEPA review process. See 36 C.F.R.. § 800.9(a). The purpose behind this regulation is to "provide the public with the fullest and most complete information available on effects on historic and cultural resources and alternatives to reduce those effects."

All Bohemia EIS's to date, however, have failed to "fully describe" these eligible properties or reveal the undertaking's potential impact on those properties. The Shamrock DEIS provides the public with the most accurate cultural resource information for the Bohemia Area. However, the Bohemia FSEIS (at Table 3-11)

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contains conflicting information with that contained in the Shamrock DEIS. The Shamrock DEIS (at 3-53) indicates one new site was discovered during cultural resource surveys in the Portage Bay area sometime during 1992. No mention was made of this find in the Bohemia FSEIS or 1995 DEIS although there is reference to "a historic log skid site (Site PET 211) that was" found above the east shoreline of Portage Bay between two timber harvest units which have been dropped from consideration." (FSEIS 4-38). It is unclear if these are the same two sites. Are they? This was a point raised in the previous appeal which the FS has not yet addressed.

The discovery of any new site is significant not only for cultural resource reasons, but also because it points to the failure of the agency to adequately survey for cultural resources. The previous 1991 FEIS claimed, as this FSEIS (at 4-38) does, that as a result of field survey, no cultural resources are expected to be affected. Yet following publication of the 1991 FEIS a new site was found which may have been severely compromised had the RODs for this sale not been withdrawn. There has been ample time since the last ROD for this sale was withdrawn for the FS to adequately address these points. Where is this information?

Soils and Wetlands

11b { Approximately 70% of the Analysis area is classified as wetland. (1995 DEIS 3-1). The FSEIS includes a map depicting wetlands in the analysis area. However, the location of these wetlands in relation to the individual units is unknown. The preferred alternative approves the harvest of 250 acres of forested wetland using highlead logging systems and the construction of 17.3 miles of road on 50 acres through these wetlands. (1995 DEIS 4-3).

11ba { The 1995 DEIS still fails to support any claim that the Forest Service has complied with Executive Order 11990 and NFMA provisions regarding protection of soils and wetlands. "Appropriate BMPs and mitigation measures" (at 4-2) will not be sufficient to protect either forested wetlands or steep, unstable soils during logging activities as required by Executive Order 11990, NFMA, and the Region 10 Soil Quality Standards.

The objective for Best Management Practice (BMP) 12.5 is "to identify wetland functions and value, and to provide appropriate protection measures designed to avoid adverse soil and water resource impacts." FSH 2509.22. The FSH later states that "the Regional Forester is responsible for ensuring wetland functions and values are considered and documented as an integral part of the planning process. ... Trees harvested on forested wetlands, or felled into peatlands or other non-forested (non-commercial) wetlands, shall be removed by suspension cable or other low impact yarding system."

11bb { The Use Of Highlead Systems On Wetlands Is A Serious Concern

Executive Order 11990 directs Federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands. Because of the lack of log suspension, using highlead cutting systems on forested wetlands will not protect the soils because of the significant soil disturbance likely to occur. In fact, proposed activities will heavily impact these wetlands, despite the agency's attempt to down play the significance of the likely impacts. For example, the FSEIS (at 4-9) states that "alternatives were designed to minimize potential impacts to identified high-value areas, rather than to avoid development on all areas technically classified as wetland." Please provide examples of such care to minimize impacts in designing alternatives. The implication that that there are only small inclusions of wetlands is very misleading when over 70% of the project area is wetland. These are not only inclusions of wetlands in the forest; but demonstrate that much of the forest is wetlands in and of itself. Highlead yarding does not meet the full suspension or low impact yarding criteria relied upon to minimize impacts to wetlands.

The analysis in the 1995 DEIS continues to raise serious questions concerning whether proposed mitigation measures (such as highlead logging systems) are effective at maintaining the productivity of these sensitive soils. No credible monitoring data is disclosed.

Productivity And Regeneration Are Problems On Forested Wetlands

Since harvest has only occurred in Southeast Alaska for a relatively short time and earlier clearcutting focused on more productive sites, the Forest Service lacks information as to just how long it will take for the forested wetland stands to regenerate. However the 1995 EIS does provide a hint at the consequences of clearcutting on forested wetland sites: "Growth rates on wetland sites are expected to be slower than non-wetland sites, and merchantable timber may not be available in a 100-year rotation." (1995 DEIS 4-3). In fact the DEIS admits that on wetland sites on Kupreanof Island measured growth rates "are very slow on these excessively wet sites." The FSEIS and 1995 DEIS fail to disclose information assuring the public that forested wetlands will be adequately restocked within five years as required by NFMA. Any decision to log forested wetlands therefore violates Section 6(g)(3)(E)(ii) and (iii) of NFMA. } 16c

The NFMA requires an assessment of the present and potential productivity of the land. The Forest Service is directed to develop regulations which "insure that timber will be harvested only where ... soil, slope, or other watershed conditions will not be irreversible damaged." See 16 U.S.C. sec. 1604(g)(3)(F)(v). The NFMA clearly requires the Forest Service to treat the natural resources of our forests, such as wetlands, as controlling, co-equal factors in forest management. All action alternatives violate this substantive limitation by permitting clearcut logging practices to occur on forested wetlands.

Anadromous Fish Habitat Protection

The 1995 DEIS Bohemia preferred alternative has the potential to severely impact the numerous important fish streams in the area including Duncan Salt Chuck Creek which has been identified by ADF&G as one of 19 "Quality Watersheds" in southeast Alaska. The greatest amount of affected stream length (10.2 miles) and the largest risk of water quality degradation are found in the preferred alternative. This alternative includes three and one-half miles of streams adjacent to clearcut units and builds roads across 35 streams. (FSEIS 4-4).

- 17 { Tributaries to Duncan Salt Chuck Creek and other anadromous fish streams in the area have inadequate protection, as proposed in the preferred alternative. Due to the lack of an effective, systematic monitoring program on the Stikine area there is no basis for the claim that BMP's actually work or that TTRA buffers are windfirm. In fact, according to ADF&G Habitat Division, Units 501, 505, 508, 515, and 522 require measures such as splitlining and directional falling, and deletion of certain areas from harvest altogether in order to protect anadromous habitat. Why have these points been continually ignored?
- 17a {

Although the FSEIS previously failed to disclose the existence of the PACFISH strategy, the science behind it, or apply that science to the Bohemia analysis the FS now has a totally appropriate tool to address better fisheries habitat protection measures on the Tongass. The recently released Forest Service report on Anadromous Fisheries Habitat Assessment: Report to Congress enunciates certain analysis and measures the Forest Service should undertake to protect anadromous fisheries habitat from degradation. An interdisciplinary team of scientists designed the strategy's watershed analysis and riparian protection measures.

- The assessment calls for watershed analysis and wider protective buffers around critical riparian and watershed features such as streams, lakes, riparian and forest wetlands and fish production and riparian habitat corridors. The report mandates other changes as well: habitat and fish community inventory; better identification of high hazard soils; monitoring of fish habitat, stream classification, and accelerated research. Please take the required "hard look" at this strategy in this planning process, the best available scientific data relating to salmon habitat protection on the Tongass. The Forest Service has a duty under NEPA to disclose, evaluate, and apply protection standards included in the assessment. Potential Impacts on the watersheds involved must be evaluated and demonstrate they will not be impaired in any of the alternatives. This comparison must occur at the project level to be meaningful.
- 17b {

- 17a { There must be no delay in completing such an analysis and applying it to the Bohemia Area. Please do not fail to take this required hard look simply because the FS is on round three of it's Bohemia analysis. There has been absolutely no re-analysis of fisheries protection measures since the first Bohemia Draft EIS although

fisheries concerns have been continually raised through the years. You now have the perfect opportunity to address these concerns.

} 18

Biodiversity

The ultimate measure of successful land management is maintaining the long-term site productivity, sustainability of resources, and conservation of plant and animal species and communities on the ground. A planning process for continuing biological diversity, which may begin to accomplish this goal, has not been completely implemented for the Bohemia project area.

The Management Direction for Management Area S-10 in the TLMP Amended 1985-86, says "key deer winter range will be given a high degree of protection." Selection of the preferred alternative does not meet this standard.

} 18a

Fragmentation of the Bohemia area, and entering unfragmented blocks of old growth with little regard for the preservation of mature fully functioning ecosystems is not concurrent with the federal mandate for biodiversity required by NFMA. The viable Population Committee convened in 1990 to assess whether some species might require special standards and guidelines. The committee recommended maintenance of habitat conservation areas to comply with NFMA biodiversity and viable population requirements. For this project, the Forest Service discussed the HCA concept but did not adopt it, and rather, according to ADF&G, offered it as an inadequate substitute for retention. The preferred Alternative has two units (Units 519 and 520) and substantial roading within the medium HCA, and two units (Units 524 and 530) within the small HCA. None of these acres should be logged or roaded.

} 18b

} 18c

} 18d

Roading and Clearcutting on Unstable Soils

By definition, moderate hazard soils include slopes over 67%. Under regulations implementing the Alaska Forest Practices Act, logging on slopes greater than 67% is prohibited and is not consistent with ACMP. Any conclusion that timber can be cut from "moderate hazard soils" on slopes greater than 67% in gradient is arbitrary, capricious and unreasonable. The Mass Movement Hazard Index is used to determine what soils are suitable for clearcutting. Research in Southeast Alaska has shown that the majority (75%) of landslides inventoried have occurred on slopes over 67%.

(Swanston, Landslide Response to Timber Harvest in Southeast Alaska at p. 10-52.) Above this angle, the soil is inherently unstable and landslides are likely to occur with any disturbance. Although landslides, in general, are discussed in the FSEIS (at 3-7), the actual logging planned on slopes greater than 67% is not disclosed or analyzed.

} 19

Although Table 4-4 in the FSEIS indicates 907 acres of moderate hazard soils are to be logged in the preferred alternative, the particular acres of timber planned for logging on steep slopes greater than 67% is not disclosed on the individual unit cards

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19a { unit cards. Even though the FSEIS claims that very high MMI (slopes greater than 75%) are not harvested in the preferred alternative (FSEIS at Table 4-4), it appears from examination of topographic lines that several units will involve logging on slopes of over 75% gradient. (#'s 510, 511, 520, 524, 530, 534). Regardless, review of units cards revealed severe concerns for potential landslides in these units.

Road Construction on Moderate Hazard Soils

20 { Although the FSEIS claims to build no roads on unstable soils, the Road Description Cards contained in Appendix B indicate otherwise. For instance, the Road Description Card for road 6032.1 contained in the FSEIS, Appendix B (FSEIS Appendix B-4) indicate that a Geotech engineer will be needed "to analyze the unstable *blue clay deposit located directly above the stream crossing at site 'E.'*" The road description cards contained for Road 45601 and 45603 indicate, "on sideslopes of 55% and greater do not sidecast excavated material and endhaul to a designated waste area." The 6032.2 Road Description Card requires locating the road in "stable reaches." These statements indicate serious concerns about road building on unstable soils. Also, there is no indication of exactly what the slope gradient is on the Road Cards. The public only knows there may be road construction slopes greater than 55%.

Habitat Conservation Areas

21 { The long term needs of fish and wildlife will not be met with the proposed selection of HCA'S in the preferred alternative, since they contain very little of the identified high value wildlife habitat in the sale area and consist of mostly low volume or inoperable stands, and/or on north facing slopes. According to ADF&G, these areas are exactly the areas they would have avoided when choosing an HCA in the project area. We incorporate those comments here, by reference. All action alternatives fail to live up to TLMP requirements that "key deer winter range will be given a high degree of protection, especially along the north shore in VCU #424." (TLMP Amended 1985-1986 at 97).

21a { As previously requested in our comments to the Forest Service's recent Environmental Assessment (EA) for their proposed TLMP amendment to develop a Habitat Conservation Area (HCA) strategy we again request, where applicable, that:

1. No logging or road building occur in high Volume Class 6 & 7 old growth (ie. 30 MMBF) below 800 feet elevation.
2. No logging or road building or salvage sales should occur in HCA's.
3. No logging or road building in the three largest old-growth blocks in each of the Tongass 21 "ecological provinces".
4. No clearcutting or road building in a one-half to one mile buffer around all mapped HCA's.

5. Provide 1,600 foot wide no-cut migration corridors between large HCA's, 1000 foot-wide corridors between medium HCA's Corridors should be kept below 800 in elevation. No clearcutting within 3,300 feet of the coastline; selective logging only.
6. No logging in "wildlife retention" areas mapped under the present TLMP.
7. For new timber sales, the total acres cut in Volume Class 5 must not exceed total acres cut in Volume Class 4.

Also as per our comments we request the proposed alternatives follow the VIAPOP Committee's recommendation for wildlife corridors. Connectivity and habitat quality should be assigned greater importance

} 21b

We continue to request that full and serious consideration be given to enlarging the North Kupreanof medium HCA 60 to include important habitat on south Bohemia Mountain, and extension of the Petersburg Creek-Duncan Canal Large HCA 23 to include the "isthmus" between Portage Bay and Duncan Canal. These modifications would allow for dispersal of wildlife on north Kupreanof to the wilderness area and southward. These two areas have been the subject of intense discussion between the public, Forest Service, and ADF&G, particularly since the isthmus is already a natural migration corridor. This is a good reason why an area analysis is needed before a ROD is signed on this sale.

} 21c

Visual Quality

The FSEIS (at 4-39) indicates that visual quality outside the river corridor would be managed in accordance with adjacent land use designations. However, as the appellants have continually reminded you, FS Handbook Regulations [Chapter 8, Sections 8.2.1.a and 8.2.2.a.] require that "timber outside the corridor for wild and scenic status, but within the viewshed, be managed and harvested in a manner which provides **special emphasis to visual quality**". [emphasis added]. This requirement plainly provides that timber outside the corridor is subject to special management to protect visual resources, regardless of the particular value or values that led to a determination of eligibility.

} 22

NCC maintains that clearcutting does not provide special emphasis to visual quality. In comments submitted for the SDEIS, NCC and American Rivers requested that all units in the viewshed of Duncan Salt Chuck Creek be managed with this requirement in mind and that they not be clearcut. (FEIS at Appendix III, E-38 and 48). Nowhere is there evidence that alternative harvest systems were ever considered to protect visual quality in the viewshed of Duncan Salt Chuck Creek.

} 22a

American Rivers and NCC requested not only in the original appeal of the Bohemia 1991 FEIS, but also in their comments to the DSEIS, that units in the viewshed of Bohemia Lakes (which is included in the eligible wild segment of Duncan Salt Chuck Creek) be given "special emphasis" to visual quality per Forest Service regulations.

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22b { Additionally, it appears that Unit 506 infringes on the eligible wild and scenic river corridor of Duncan Salt Chuck Creek. This was pointed out in the 4/11/94 letter from Regional Forester Mike Barton to the Stikine Area Forest Supervisor. We are surprised that no action was taken to correct this situation.

22c { The FSEIS treatment of these cutting units, with regards to visual quality, is confusing and conflicting. First, the FSEIS claims to have modified cutting units, within the eligible wild and scenic river viewshed, to meet a visual quality objective of "partial retention" for units as seen from the eligible wild and scenic corridor (FSEIS at 2-11 and Appendix E at 10). Then, the FSEIS indicates that units in the viewshed of the eligible corridor would *likely* meet a VQO of "maximum modification" immediately after harvest, and would *likely* meet a "modification" VQO in 5 to 10 years. (FSEIS 4-41). Finally, the Units 505 and 506 cards claim to meet visual quality objectives for "partial retention" and the card for Unit 510 claims to meet VQO's for modification.

22d { According to the definition, a partial retention VQO suggests "maintaining for little or no visible change in the landscape." (FSEIS 3-33). How is a huge clearcut, on the side of a mountain, in full view of the river corridor meet this definition? **Please answer this question.** In addition, the planned unit card for unit #510 (FSEIS at A-24) indicates the uphill boundary line will be joined with the alpine muskeg as much as possible... ". However, in the discussion on Affected Environment in the document, it was noted that "there are few alpine areas within the Bohemia analysis boundary." (FSEIS 3-32). We also question why units 501, 502, 503, 511, and 508 were not considered to be within the viewshed of the Bohemia Lakes, since topographic lines indicate they can probably be seen from that location. We also note the serious omission of any "sensitive viewpoints" from the Duncan Salt Chuck/Petersburg Creek Wilderness Area included in the FSEIS, to access the impacts of clearcutting and roading in the viewshed as seen from heavily used Duncan Canal and the Wilderness Area.

22g {

Nowhere is there evidence in the FSEIS that FSH requirements were met. Not only does clearcutting these units violate Forest Service Handbook regulations, but the rational that VQO's of partial retention, modification, or maximum modification result in "special emphasis" to visual quality is bogus. Unit card explanations that supposedly demonstrate attention was given to visual quality are bogus too. While we do not agree with a VQO of maximum modification being applied to any units in the viewshed of Duncan Salt Chuck Creek, there is no basis for the claim that these units would "likely" meet a modification VQO 5, 10, or even 20 years into the future! In addition, there is no guarantee that the layout crew will actually be able to mimic the irregular lines drawn on the unit cards which supposedly result in meeting these VQO's.

Changes Made Outside of the NEPA Process

The FSEIS claims that unit modifications may be made in the field. (FSEIS Appendix A-5). This improper practice of "unit expansion," whereby areas outside of the Record of Decision are harvested, represents gross mismanagement and abuse of authority and violates NEPA. It is exactly the type of illegal activity that resulted in claims by former IDT Leader for the Central Prince of Wales timber sale, Mr. Bill Shoaf, that over 5,000 acres of old growth temperate rain forest were illegally cut during the 1989-94 KPC Long Term Contract. This practice severely compromises the Forest Service's future ability to plan timber sales and meet its obligations under various federal environmental and land management laws.

This claim, and others, by Mr. Shoaf, are currently before the U.S. Office of the Special Council which evaluates federal government whistleblower complaints, as well as the new Chief of the Forest Service. The OSC has determined there "is a substantial likelihood" that Mr. Shoaf's complaints are true.

According to the unit cards, two units are proposed to be harvested by helicopter, using full suspension (Units 524 and 530). The reason helicopter yarding is required is due to severe soil stability and landslide potential concerns. However, in a discussion of yarding techniques contained at the beginning of the unit descriptions, the claim is made that the "purchaser may find a suitable method to cable log some of the helicopter units." (FSEIS Appendix A-4). Not only does the "purchaser" have no authority to use harvest techniques not approved in the EIS, but such a change is "significant" and requires further NEPA review.

In fact in the 4/11/95 letter to the Stikine Area Forest Supervisor, Mike Barton reminds that "District Rangers have the authority to determine the significance of modifications made during unit layout. The responsible official cannot redelegate this authority." We suggest that the Final EIS be corrected to point out the illegal nature of unit expansion by field personnel.

Marbled Murrelet And Queen Charlotte Goshawk

The FSEIS does not meet NEPA requirements to conduct a detailed and thorough assessment of the impacts of the proposed logging and road building on wildlife. In particular, the FSEIS fails to completely assess impacts to two species of concern on the Tongass - the Queen Charlotte Goshawk and the Marbled Murrelet.

The FSEIS recognizes that the two species are being considered for addition to the Region's Sensitive Species List. Although former Bohemia IDT Wildlife Biologist, Bob Daniels spotted an immature goshawk in August, 1990 at the head of Portage Bay this sighting was not disclosed in any EIS. An adult goshawk was sighted near unit 538 and was documented in the 1995 EIS. Another sighting of an immature goshawk was documented (in notes obtained through a FOIA request) between 8/11, 8-13, and 8/14/94 near Units 541. In fact Steve Blatt Jr. recommended in a 2/14/95 letter that additional surveys be conducted during the 1995 breeding season near the areas

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4a
cont. { where there have been goshawk sightings. Were these surveys conducted as recommended? What are the results of the surveys?

In light of the inadequacy of the interim guidelines, the absence of goshawk surveys, in the project area, and continued loss of habitats on Kupreanof Island, the Bohemia project increases the probability of significant resource loss.

24b { Why weren't impacts to marbled murrelets mentioned in the 1995 DEIS?

CONCLUSION

In its overwhelming desire to add to a possible road connection between Portage Bay and Kake, the Forest Service has disregarded the most basic of environmental laws and agency policies to achieve its goal. Throughout the Bohemia planning process, the Forest Service has confused, circumvented, and ignored meaningful public participation. The end result is another document replete with inaccuracies and serious omissions. The roading of an important LUD II Area was not proven to be legal, logical, or even economical since Forest Service management could have avoided roading there altogether. We wonder why the Forest Service chose to risk another appeal when road 6031 could have been located outside the LUD II area altogether, as depicted in this latest version of the Bohemia EIS.

However once again a preferred alternative has been identified with the most impacts to subsistence users although other less damaging alternatives existed that still met the purpose and need of the project. Finally, the flaws in the evaluation of biological impacts of this project are so serious, especially in view of number and intensity of logging entries to the Bohemia area and adjacent areas, and the detrimental ramifications on other resources of any band-aid remedies are so unpredictable that the flaws must be ruled to be fatal to the plan once again. In an era, where forward-thinking "ecosystem management" has become accepted practice, it is sad that your agency proposes another land management plan based on tired and worn out axioms.

Environmentally the best alternative is the no action alternative. Where the local economy is concerned an alternative that cuts the timber in alternative #3 in 1/4 to 1/2 million board feet sales spread out over an extended period of time to provide a steady timber supply to small local processors would be preferred.

Thank you for the opportunity to comment. We look forward to a serious and honest analysis of this timber sale.

Sincerely,



Rebecca J. Knight for
Narrows Conservation Coalition

Letter from Narrows Conservation Coalition

Comment 1: We continue to believe that if there are any additional links to the Petersburg/Kake connection, an EIS must be prepared for the full length of road.

Response 1: There are no current or proposed plans for the Forest Service to construct a Petersburg/Kake road. The Alaska Department of Transportation (ADOT) requests the reservation of a Kake-Petersburg transportation corridor but has no plans to re-start the planning process within the foreseeable future. The relocation of road 6031 to avoid the candidate Wild and Scenic River corridor, Canada geese nesting areas and LUD II lands places much of this Forest Development road outside of the State's preferred transportation corridor and would likely not be used by the State, if and when they were to construct a Kake-Petersburg Road.

Comment 1a: The only purpose for this particular stretch of road is for National Forest administration, not removal of timber, as the current and previous EIS's claim. As the IDT leader acknowledged a few years ago, "This road project is a "project unto itself."

Response 1a: The comment "This road is a project unto itself" is taken out of context and refers to a Kake-Portage Road connection. There is no Kake-Portage Road connection now associated with the Bohemia Mountain Timber Sale.

Comment 2: Majority of public comments not in favor of building Road 6031

Response 2: Much of the public comment against the construction of Road 6031 is based on the perception that the road would be uneconomical. A transportation economic analysis indicates that Road 6031 is the most economic (least cost) form of road access to the Bohemia Mountain area when the costs of initial road construction and long-term management (log haul) are considered.

The initial cost of constructing the mainline road associated with hauling timber from Bohemia Mountain to the Little Hamilton LTF is \$1,143,000 (7.4 miles). This route is associated with Alternative 6. The initial cost of constructing the mainline road from Bohemia Mountain to the Portage Bay LTF is \$ 1,848,000 (10.2 miles). This route is part of Alternative 5B. In road construction alone, the Bohemia-Little Hamilton route would cost \$705,000 less than the Bohemia-Portage Bay route.

The second part of the economic consideration is what log haul would cost over both routes. To analyze this, the amount of timber remaining after this project needs to be considered. Timber inventories estimate 126 million board feet of timber within VCU 424 (Bohemia Mountain area) is tentatively suitable for harvest. (This is the volume that is left after the deductions for wildlife retention, beach fringe, estuaries, fish stream buffers, and soil hazard.) The haul cost for the Bohemia-Little Hamilton route is \$32.00/MBF, for Bohemia-Portage Bay is \$22.00/MBF. In haul costs, the Bohemia-Portage Bay route is \$10.00/MBF less

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expensive than the Bohemia-Little Hamilton route. The difference in construction costs between the two routes is \$705,000, therefore it would take 70.5 million board feet (at \$10/MMBF) hauled over this route for the haul savings to offset the higher road construction cost.

The preferred alternative, 5B, harvests approximately 22 MMBF from the Bohemia Mountain area; that leaves 48.5 MMBF to be harvested in the future to pay for the added road cost. Since there is nearly 126 MMBF available and we propose to harvest 22 MMBF for this timber sale, that leaves 104 MMBF for future sales. A conservative estimate would be that at least half (52 MMBF) of this timber would be harvested during the next 100 years.

Comment 2a:

"The AFA has suggested redesign of the Bohemia Mt. Timber Sale, and splitting it into two separate sales....While our foremost objective is to make the sale economically viable...there would also be some environmental benefits, *chiefly from the deletion of road #6031.*" (emphasis added).

Response 2a:

It has been suggested that the Bohemia Mountain Timber Sale be divided into two sales, by hauling the volume from the west side of Portage Bay to the Little Hamilton Island LTF and hauling the volume east of Portage Bay to the Portage Bay LTF. Alternative 6 displays precisely that opportunity. All the Bohemia Mountain timber is hauled back to Little Hamilton Island LTF and the east Portage Bay timber is hauled to the Portage Bay LTF. A review of the Economics, Table 2-4 in the 1995 DSEIS, indicates a Mid-market Net Value of -\$86, slightly worse than the -\$84 indicated for the preferred alternative 5B.

Comment 3:

Need for Road 6031 not clearly demonstrated

Response 3:

See Response 2.

The Forest Rangeland and Renewable Resource Planning Act of August 17, 1974, as amended by Section 8 of the National Forest Management Act of October 22, 1976, states: "...Roads constructed on National Forest System lands shall be designed to standards appropriate for the intended uses, considering safety, cost of transportation, and impacts on land and resources." This language forms the current basis for the so-called "maximum economy road" concept. The intent of Congress is that roads are built to the lowest standards consistent with the intended uses of all resources, and that rational analysis including economic and environmental considerations be used to justify road standards. Road standards include not only the geometric design criteria such as width, alignment, etc. but also the road surface and road location. The determination for adhering to the maximum economy law is expressed in Forest Service Manual 2400 where it is emphasized that "every effort must be made to build the road which serves an individual sale on the same location as the road needed for long-term management."

Comment 4: Although the FS cites (at 1-2) recent market assessment for the independent sale program by Morse (May 1994) as an indication this particular sale would be in demand by independent purchasers, is in error in regards to timber in the Bohemia Range.

Response 4: Please see the 1995 FSEIS, Chapter 4, the Timber Sale Economics section for current market assessments. There are several current indicators of strong market demand for pulp and saw timber from all areas of the Tongass.

Comment 4a: Timber in the Bohemia Range is of such small size and poor quality that aside from a few yellow cedar there is very little saw quality timber there.

Response 4a: We agree that the timber on the Bohemia area is smaller and of poorer quality than on some other areas of the Tongass National Forest. The size and quality of the timber varies even within the Bohemia area. However, commercial timber standards are the same throughout the forest. The minimum standard for commercial forest is 8000 net board feet per acre. There is an estimated 25,840 acres of commercial timber on the Bohemia study area. Please see the 1993 FSEIS, Chapter 3, Timber section, pages 35-38.

The Forest Service does not specify the end product to be made from National Forest timber beyond requirements for primary manufacture. The purchaser makes a business decision on whether to manufacture the timber into sawlogs, wood chips, pulp, or other products. This decision is usually based upon the markets for different products. Also please see Response 36 to the letter from Michael Medalen.

Comment 4b: We would like a compilation of **all costs** incurred by the USFS studying the Bohemia Range Sale since 1989....

Response 4b: Some costs, including the cost of the analysis itself and National Forest management costs, are not included in this analysis. They are outside the scope of this analysis and decision. Those costs are not germane to the alternatives or decision to be made since they remain the same for all alternatives.

Comment 4c: Perhaps it would help if you would explain to the public why you want to spend large amounts of their money to access a sale that the timber industry considers uneconomical in the form that you want to sell it to them.

Response 4c: Under the residual value appraisal system used by the Forest Service, the cost of roading is deducted from the stumpage values. Public funds are not used unless the sale is supplemented. The purchaser's bid determines the actual value of the sale. Also, please see Response 5 to this letter.

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Comment 4d: ...You could explain why you spent \$3,000,000 over a decade ago to access the same area from the opposite direction for a sale of similar low volume and quality timber that never sold. Wasn't part of the rationale for building the "Road to Nowhere" from Kake into the Bohemia Range to access "future" timber sales? How can the Forest Service justify the construction of all those miles of road if the Forest Service plans to haul most of the timber from the Bohemia Range to the Portage LTF?

Response 4d: We believe you are referring to Road 6030. Over thirteen miles of this road were constructed in 1981 for approximately two million dollars. This road was used to access the Combination Timber Sale which was successfully completed. It would also be used in Alternative 5B to haul timber to the Little Hamilton LTF.

The 6030 road has accessed past timber sales and could access future timber sales. It also is currently used for Forest Service administration and by the residents of Kake for recreation, hunting, and subsistence. Also please see the 1993 FSEIS, Chapter 4, Transportation section, page 46, for a discussion of the haul to the Little Hamilton LTF. Road 6030 is necessary for hauling timber for Alternatives 4A, 5B, and 6. The road would be used for one of the purposes it was intended. The road would not be used for haul in Alternatives 1 and 3.

Comment 5: The "Purpose and Need" of the Bohemia project is not clear

Response 5: We apologize for any confusion that might have been caused by the wording in the description of the "purpose and need" for this project. To eliminate the confusion, the description of the "purpose and need" in the 1995 FEIS is consistent with the description in the 1992 SDEIS and the 1993 FSEIS.

Although the wording did change, the only essential element of the "purpose and need" that changed from the 1991 version of the EIS was dropping the part of the "purpose and need" that addressed the suitability of the Duncan Salt Chuck Creek for inclusion in the National Wild and Scenic River System. The purpose and need of providing between 10 and 40 MMBF of timber for harvest as part of the Stikine Area Independent Sale program remains the primary purpose of this project. The discussion of transportation needs is ancillary and intended as background information. Both of those elements, timber harvest and development of the transportation network, are found in the management direction/emphasis section of the Forest Plan for the Bohemia Mountain Study Area.

Comment 5a: Long term transportation needs?

Response 5a: The transportation management objective specified in the Forest Plan is to "connect the road system in this Management Area to that of the rest of Kupreanof Island if economically and environmentally feasible." Since the area is designated as a LUD IV with an emphasis on utilization of timber resources, it stands to reason that the transportation objective would include the access of merchantable timber. It is not feasible to justify the road construction based on the annual use of the area because no such data is available and if it were available it would not be a reliable indicator of use after the area became accessible by road.

Comment 6: TLMP 1985-86 management direction regarding the construction of a Kake-Portage road is not set in stone

Response 6: The 1985-86 Forest Plan (TLMP), including the goals, objectives, land allocations, and standards and guidelines, is all still valid and does provide the direction for projects such as this. Language in the forest plan scheduling specific projects is permissive and not prescriptive. In other words, while the Forest Plan is still valid, you are correct in noting that the Forest Plan allows for, but does not require, a Kake-to-Portage road connection.

Comment 7: An area analysis is required by TLMP

Response 7: TLMP, in the discussion of Area Analysis, gives the Forest Supervisor the latitude to "address several projects on a large area or a single project on a smaller area." In this case, the Forest Supervisor has elected the latter option. There are plans to conduct a larger scale analysis on Kupreanof Island where some of the more recent concepts of ecosystem management can be evaluated on an island-wide basis. But this analysis will not be completed prior to the Bohemia Mountain Timber Sale project.

Comment 7a: An area analysis requested by the public at subsistence testimony

Response 7a: See Response 7.

Comment 8: According to the EIS Unit 541 was added in response to the State's request to avoid long stretches of road without sufficient volume. Instead of deleting over ten miles of unnecessary mainline road 6031, the Forest Service added unit 541 along this stretch with 1.8 mile spur to access it off the mainline road. The addition of this unit was not logical, since, if the intent was to avoid long stretches of road without sufficient volume, then there should have been an alternative that considered an extension of the Bohemia Mountain road #6032.1, 2 to 3 miles, in order to pick up the volume for unit 541. Or better yet, why build the expensive additional 10.6 miles at all, to access only 570 MBF of low quality timber contained in unit 541?

Response 8: Alternatives 3, 4A, and 6 do not build the road. We believe that those alternatives address this concern. One of the reasons for developing Alternative 5B was to address the long term economics of future sales. The haul route to Portage Bay LTF is shorter than the haul to Little Hamilton LTF for most of the commercial timber on Bohemia Mountain. In Alternative 5B, Road 6031 accesses the entire Bohemia Mountain except for five units and hauls the timber to Portage Bay LTF. Please see Chapter 2, Alternative 5B, page 2. Unit 541 was added to improve the economics of the alternative. The unit was added because the road goes by the unit to access Bohemia Mountain. The road was not planned just to access the 570 mmbf of timber in the unit. Also please see Response #2.

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Comment 8a: Please identify where in Unit 541 the "small patch clearcuts" are located. Also what contributed to the "advanced natural regeneration" existing in Unit 541? Was this a result of windthrow? If so, what evidence does the Forest Service have that such blowdown will not occur again as this stand of timber is opened up through timber cutting?

Response 8a: Please see the 1995 FSEIS, Appendix A, Unit Card 5B-541. The areas of uneven-aged timber to be harvested are concentrated in the north and central portions of the unit. The even-aged advanced natural regeneration probably resulted from a windstorm. The even-aged trees are approximately 30 feet tall and are relatively windfirm. The uneven-aged timber to be removed is larger and more at risk for windthrow.

Comment 8b: There is an apparent "blind lead" located at the south end of unit 541 spur road.

Response 8b: The apparent blind lead is in an area of even-aged regeneration and will not be harvested.

Comment 8c: Why are there no Class III streams depicted on the unit card? Class I streams don't normally appear out of a seep in the ground as depicted on the unit card. Please identify where the beaver habitat is located in the unit.

Response 8c: No known Class II or Class III streams exist within the unit. The Class I stream which is shown to end at the boundary of Unit 541 is a flooded beaver slough area off of the main creek. Small seeps feed into this slough area. While Class I streams do not normally appear out of a seeps, this one does. The beaver habitat is identified by the Class I stream.

Comment 8d: What assurance does to public have that no commercial timber will be "felled into the LUD II area" as implied on the unit card for this sale? Are the boundaries of the LUD II area surveyed? If not, why not?

Response 8d: The unit boundary was located over 800 feet away from the LUD II boundary to avoid any impacts. The LUD II boundary is not surveyed. It is an administrative boundary which the Forest Service rarely surveys due to the high cost and marginal benefit of the survey. The Lud II boundary location was determined from TLMP maps.

Comment 9: On that map the spur road to unit 541 is a dashed line labeled "future spur". If road 6031 is part of the same sale as unit 541 how can they be concurrent if unit 541 is to be accessed by a "future spur"?

Response 9: The map referred to is a working draft. The same map as displayed in the 1995 DSEIS displays the road as "proposed." Please see Response 2 to this letter and Response 36 to the letter from Michael Medalen. The Forest Service believes this sale will sell under current market conditions.

Comment 9a: What is the possibility that the Forest Service will pre-road mainline road 6031, prior to offering the Bohemia side of the sale and in effect get their much sought after road segment?

Response 9a: We do not know whether or not there will be funding available to pre-road mainline road 6031. With shrinking federal budgets it doesn't seem likely.

Comment 10: Subsistence

Response 10: Before responding to specific subsistence questions it may be helpful to discuss Forest Service policies and procedures for the management of subsistence on Forest Service lands within Alaska. All land managing agencies within Alaska are directed to adhere to provisions specified within the Alaska National Interest Lands Conservation Act (1980) (ANILCA), Title VIII; Subsistence Management and Use.

Forest Service management of subsistence is consistent with the purpose for the establishment of the National Forests. Forest Service management will provide for a continuation of the customary and traditional consumptive use of fish, wildlife, and other wild renewable resources on National Forests lands within Alaska. The management of the forests must comply with many laws and regulations. Under the Multiple Use-Sustained Yield Act of 1960, the Secretary of Agriculture is "authorized and directed to develop and administer the renewable surface resources of the National Forest for multiple use and sustained yield of the several products and services obtained therefrom" (16 U.S.C. Section 529). Multiple use means "the management of all the various renewable surface resources of the National Forests so that they are utilized in the combination that will best meet the needs of the American people"(16 U.S.C. Section 531). Sustained yield means "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forests without impairment of the productivity of the land." (16 U.S.C. Section 531).

We do not believe that Title VIII of ANILCA was intended to repeal or restrict multiple use management here in the Stikine Area of the Tongass National Forest. ANILCA, Section 802, stated a congressional "policy" that "the utilization of public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses...consistent with... **the purpose for each unit established, designated, or expanded by or pursuant to Title II through VII of this Act**" (emphasis added). With respect to this particular project, Title VIII of ANILCA must be read in conjunction with other provisions of ANILCA which provide for an active timber industry, mining, recreation, and other uses.

Section 804 of ANILCA provides that nonwasteful subsistence uses of fish and wildlife and other renewable resources will have a priority over other consumptive uses of those resources. The effect of this section is to generally require that all sport and commercial fishing and hunting be eliminated before fish and wildlife regulations can restrict subsistence uses. Section 805 of ANILCA allows the State of Alaska to manage the taking of fish and wildlife on federal public lands if it is consistent with ANILCA. Presently, the State of Alaska is out of compliance with subsistence provisions mandated under ANILCA.

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Section 810 of ANILCA is the focus of a portion of your letter. Section 810 is defined, and applies solely to determinations **"whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands"** (emphasis added). Many Forest Service activities do not fall within the definition just presented. An example of activities not covered under this section would be fire suppression. This is not to say that subsistence is not considered when Section 810 is not applicable. Subsistence is a major component within activities covered by the National Environmental Policy Act (NEPA) (1970).

In cases where Section 810 does apply, the Forest Service assesses the impact of the activity on subsistence uses, needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. If the Forest Service determines that there may be a significant restriction on subsistence, occurring as a result of the proposed action, then the procedures set forth in Section 810(a)(1)-(3) are followed and the agency will only go forward with the action if the requirements of 810 (a)(3)(A)-(C) have been met. After determining that the conditions set forth in Section 810(a)(1)(A)-(C) have been satisfied, the Forest Service may manage the public lands under its jurisdiction for any uses or purposes authorized by law.

Comment 10a: Due to the almost complete devastation of deer habitat around Kake this area will be **very important** for subsistence users, especially those from Kake.

Response 10a: According to the Tongass Resource Use Cooperative Survey (TRUCS), "Ever Hunt Deer" category, the community of Kake does **not utilize** a major portion of the study area for the harvest of deer. It would appear that the western limit of the study area is on the periphery of Kake's subsistence use area for Kupreanof Island.

The 1995 FSEIS Chapter 4, Subsistence section states that the proposed timber harvest activities are not expected to displace subsistence users from traditional areas used for harvesting wildlife (other than deer), marine mammals and timber. Some subsistence users have indicated they would avoid areas where there was noise or other evidence of logging in the area. Since the beach, estuary, and riparian areas where most subsistence activities take place will remain intact, subsistence activities will likely resume when adjacent logging activities end.

Comment 10b: Agree that the finding may be a significant restriction of subsistence use of deer in the area. However, the findings that are necessary to justify this restriction are not supported by the record.

Response 10b: Please see the 1993 FSEIS, Subsistence sections, Chapter 3 and Chapter 4 and the 1995 FSEIS Chapter 4 Subsistence Section. Further findings and support will be found in the Record of Decision issued for this project.

Comment 10c: The restriction is not "necessary" under ANILCA Section 810 (a)(3)(A). None of the various laws, plans, and guides cited in any document related to this sale require the Forest Service to offer any particular amount of timber through independent timber sales. Thus, any restriction of subsistence use is not necessary, because the Forest Service is not required to sell timber.

Response 10c: ANILCA, Section 810(a)(3)(A-C), is the portion of the law which specifies that the federal agencies evaluate the effect of their proposed projects to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands on subsistence use. An evaluation is completed during the 810(a) process. Furthermore, Section 810(d) provides that after compliance with the procedural requirements of the section, the agency may manage or dispose of the public lands for the purpose authorized by the law. The finding that the risk of a possible restriction upon subsistence uses presented by this project is necessary is supported by the analysis in the FEIS and its Supplements and explained in the ROD.

Comment 10d: There is no mandate to harvest timber anywhere on the Tongass.

Response 10d: As stated earlier, management of the forests must comply with many laws and regulations, including the Multiple Use-Sustained Yield Act of 1960 described in the second paragraph of Response 10.

Under the Alaska National Interest Lands Conservation Act (ANILCA) of 1980, Congress specified the availability of 4.5 billion board feet of timber each decade from the Tongass National Forest. Following the passage of the Tongass Timber Reform Act (1990), the 4.5 billion board feet requirement was replaced with the goal of seeking to supply an amount of timber from the forest to meet market demand.

Comment 10e: ...The preferred alternative does not use "the minimum amount of lands necessary" to accomplish the timber sale, as required by ANILCA section 810(a)(3)(B). In fact, to the contrary, the Forest Supervisor selected the alternative with the largest amount of land....For the same reason, the preferred alternative does not "minimize adverse impacts" as required by Section 810(a)(3)(C).

Response 10e: The Bohemia Mountain Timber Sale project is designed to meet the goals and objectives for timber supply established in the Forest Plan for the Stikine Area of the Tongass National Forest. Additionally, the 1993 and 1995 FSEISs continue to meet the present guidelines and those stated in the Forest Plan Revision. Furthermore, the Forest Service continues to provide habitat capability for fish, wildlife, and vegetation that is traditional and customary for subsistence use and users. Further support for the ANILCA Section 810 "Tier II" findings referenced in the comment are found in the EIS, its Supplements, the Record of Decision, and supporting documents.

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Comment 10f:

According to the FSEIS (at 4-16) the current habitat capability in WAA 5136 (east side of Portage Bay) is *below* that needed to meet the historic demand of 1960-1968. (FSEIS at 4-25). However the only other two timber sales that clearcut on the east side of Portage Bay were the Missionary Timber Sale and Mitkof/Kupreanof Small Timber Salvage Sale. EA's for both sales indicate that there would not be a significant restriction to subsistence uses or resources. Perhaps the reason that predicted habitat capability numbers resulting from previous timber sales differs from what was initially expected is due to differences in the use of the TIMTYPE versus TIMCLU databases....

Response 10f:

Actually the Portage-12 Miles Sale (1975 - 1984) harvested 48.7 MMBF and constructed 22 miles of Forest Development Road in WAA 5136. This sale, as well as earlier harvest, was considered in the deer models.

At the time the Missionary Timber Sale and the Mitkof/Kupreanof Small Timber Salvage Sale were planned, federal subsistence analysis was a relatively new endeavor. The tools used in and the understanding of the subsistence analysis process have improved greatly since that time.

The Forest Service used the best timber database available to run the deer model. The finding that the modelled east Portage Bay deer habitat capability is below the estimated historic demand would result with the use of either the TIMTYPE or TIMCLU data base.

Comment 10g:

The Forest Service has claimed that "impacts to subsistence use have been minimized through the development of individual harvest units and road corridors..."

Response 10g:

Much of the Tongass National Forest is used by one or more rural communities for purposes of deer hunting. The areas most often used for subsistence are the areas adjacent to existing road systems, the beaches, and the areas in close proximity to communities. Areas other than subsistence use areas that could be harvested may be limited by other resource concerns such as soil and water protection, high value wildlife habitat, economics, scenery, or harvest unit or road design limitations.

Specific concerns necessitated the placement of the road around the head of Portage Bay; and portions of units were dropped or avoided in order to minimize concerns to subsistence and wildlife.

Comment 10h:

...A March 6, 1989 Wildlife Resource Report for the Bohemia project...indicated, "an area of special concern regarding road traffic is the lowland muskeg area on the north and east side of the Bohemia Range since it bisects two major deer wintering areas."

Response 10h: Road construction activity and road traffic can displace wildlife. These effects will be minor and occur for only a short period of time. The roads will receive minor amounts of traffic use when the sale is harvested and even less after sale activities have been completed. This activity will also be seasonal, most activity in the late spring, summer, and early fall, with extremely little if any at other times of the year. The roading activity should have no impact to wintering deer. Table 4-11 (1993 FSEIS) displays the miles of road constructed within various wildlife habitats by alternative. Construction of the roadbed will convert wildlife habitat into non-habitat. This conversion is factored into the management indicator species models.

Comment 10i: There has been no acknowledgement of several concerns raised at subsistence hearings for this sale.

Response 10i: The subsistence hearing testimony, collected over several proposed project iterations, is considered in the analysis and final decision-making process. ANILCA mandates (Section 810(a)(2)) that the agency "gives notice of and holds, a hearing in the vicinity of the area involved and determines whether such a significant restriction of subsistence is necessary."

In addition, informational open houses were held prior to each hearing. Letters, notices, and announcements were made prior to each of the hearings related to this proposed project. All ANILCA Section VIII subsistence testimony, as well as written comments, are considered in the analysis and included in the planning file.

Comment 10j: Table 2-13 contradicts the subsistence section in Chapter 2-2 which states: "There would be increased access to the Bohemia Mountain Area from the Portage Bay logging camp and more competition for subsistence resources. Habitat for some subsistence resources may be affected." However, Table 2-13 indicates no possibility of significant restriction of subsistence use of deer in any alternative for competition or access.

Response 10j: Under alternative 5B (page 2-10) of the 1993 FSEIS, the Forest Service projected "some potential to affect subsistence resources. There would be increased access to Bohemia Mountain Area from the Portage Bay logging camp and more competition for subsistence resources. Habitat for some subsistence resources may be affected."

Additionally, the 1993 FSEIS subsistence analysis for this north Kupreanof Island timber sale focused on the renewable natural resources found within the study area, and the communities which use the area for subsistence purposes. The intent of the subsistence analysis is to conduct an evaluation of the proposed alternatives to find out if any proposed action "may" significantly restrict subsistence uses within the analysis area.

The Alaska Land Use Council and the U.S. District Court Decision of Record in *Kunaknana v. Watt* provided definitions of "significant restriction of subsistence uses" and guidelines in the findings."

In essence, the Forest Service believes the effects displayed within the text and tables are consistent, and that the potential access and competition impacts are not sufficient to trigger a significant possibility of a significant restriction to subsistence resources.

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- Comment 11:** The Forest Service's responsibility to treat recreational and tourism uses of the Tongass as controlling, co-equal factors in forest management is required by both NFMA and the TTRA. The reduction of semi-primitive non-motorized (SPNM) recreation opportunities and increase in "roaded-modified" recreation opportunities in the preferred alternative...demonstrates the agency's inability to manage Tongass lands on Kupreanof for any objective other than fulfilling Region 10 timber targets.
- Response 11:** Changing the recreation opportunities from semi-primitive non-motorized to roaded modified does displace some users. Some people, however, do not have the desire or ability to enjoy semi-primitive experiences and therefore prefer roaded modified areas with better access. There's still opportunity for primitive experience on north Kupreanof.
-
- Comment 11a:** Unit cards...indicate Unit 538 is also "highly visible from the trail yet the only modification the IDT offered was to reduce the size of the unit. However, this was done in response to concerns from wildlife biologists, not recreation specialists.... This unit should have been deleted entirely, not only for wildlife concerns, but also for recreation concerns.
- Response 11a:** Unit 538 was reduced in size and reshaped to meet several resource concerns including recreation. The interdisciplinary team strives to meet a balance of uses.
-
- Comment 11b:** ...Mary Clemens expressed concerns that the Kake/Portage road connection should not be built "because it has the greatest amount of impact on the wilderness and she doesn't feel it will benefit recreation." Although the preferred alternative will not build a "connection" the impacts on the wilderness are the same.
- Response 11b:** The telephone call record stated that from a Recreation viewpoint, Alternative 5 and the Kake/Portage road would have the greatest amount of impact on the wilderness.
- The concerns expressed in the telephone call record referred to the whole Alternative 5, not just the road connection at the head of Portage Bay which would cross the Portage Mt. Loop Trail in two places. Alternative 5 has since that time been dropped from consideration. None of the remaining action alternatives in this project build the Kake-Portage road, therefore the effects to wilderness (easy access via a community road link) are greatly diminished.
-
- Comment 11c:** Changes in the potential recreational experience are completely destroyed with the presence of an 87 acre clearcut surrounding this beautiful waterfall.
- Response 11c:** The waterfall near Unit 524 is outside the unit.
-
- Comment 11d:** Given the level of degradation to recreation places on the Tongass, the idea that users can simply shift to other parts of the forest is untrue and unsupported by meaningful analysis.

Response 11d: The Petersburg Creek - Duncan Salt Chuck Wilderness is adjacent to the Bohemia Mountain Study Area and could still provide many primitive recreation opportunities. The area west of the sale also has primitive recreation opportunities.

Comment 11e: Demand for roadless recreation has increased dramatically in the last few years....The primitive recreation experience offered by the Petersburg Creek/Portage Bay/Duncan Salt Chuck/Ohmer Slough/Coho Creek Loop Trail will increase in importance dramatically....

Response 11e: The loop trail you refer to is not a currently maintained, existing trail. Many years ago there was a trail that extended to Ohmer Slough and across to Coho Creek as you described but it is no longer maintained as part of the Petersburg Trails program. Parts of this old trail location are no longer primitive since the Tonka Road was built nearby. The existing Portage Mt. Loop Trail starts at Petersburg Lake (where the Petersburg Lake Trail ends) and continues to Portage Bay and then south to Duncan Salt Chuck where it ends at the Forest Service Salt Chuck East Cabin. The Forest Service is exploring possibilities of extending the trail around the southern end of Portage Mountain and tying back to the Petersburg Lake Trail. This would complete the loop and keep the majority of the trail in the Wilderness Area.

Comment 11f: The City of Kupreanof has expressed interest in the...Loop Trail....They believe that the trail system, in its presently unroaded state, offers an invaluable attraction....

Response 11f: As stated above, the southern part of this trail is no longer maintained and the location is no longer in an "unroaded state" with the Tonka Road in close proximity and crossing the old trail. The possibility of routing a new portion within the Petersburg Creek - Duncan Salt Chuck Wilderness would seem to better address the needs of the City of Kupreanof.

Comment 11g: If this preferred alternative is approved, the Forest Supervisor will not have fulfilled her responsibilities under NFMA and the TTRA by insuring that these valuable renewable forest resources are protected and maintained. It would further violate NEPA by failing to adequately disclose and analyze the cumulative effects of past, present and proposed timber development activities on national forest and private lands adjacent to the project area and what impact this particular sale will have on future recreation growth.

Response 11g: The responsibilities to NFMA and TTRA have been fulfilled in this project analysis. Impacts to primitive and semi-primitive recreation and cumulative effects on recreation are discussed on page 4-35 of the 1993 FSEIS.

Comment 11h: The selection of the preferred alternative has no intention of providing the "broad spectrum" of recreation opportunities in this project area as required by TLMP.

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- Response 11h:** "Broad spectrum" of recreation opportunities can include recreation in roaded areas. Dispersed recreation can also take place near roads. Some areas of primitive and semi-primitive recreation opportunities would remain in the area as well as roaded modified opportunities.
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- Comment 11i:** ...Implicit in that discussion is the conclusion that recreation use in the area will be increased because of the increased access provided by the expanding road system....The Forest Service cannot possibly expect to maintain the little used roads in the Portage Bay Area in safe condition for roaded recreation, let alone additional roads in that area.
- Response 11i:** Improving access to an area by building roads can increase recreation use even if the roads are not maintained or opened for vehicle traffic. Activities like hiking, mountain biking, and driving ATV's can all take place on minimally maintained roads and some closed roads. See Appendix B in the 1993 FSEIS and Appendix B in the 1995 FSEIS for Forest Service objectives for road management in the area. We do not anticipate use of these roads by passenger vehicles.
-
- Comment 11j:** The analysis...fails to disclose the Forest Service policy of building logging roads to lower standards initially and upgrading them as use is intensified.
- Response 11j:** There is no Regional Policy to build logging roads to a lower standard initially and upgrade them as use intensifies. Quite the contrary, the Forest Rangeland and Renewable Resource Planning Act of August 17, 1974, as amended by Section 8 of the National Forest Management Act of October 22, 1976, states: "...Roads constructed on National Forest System lands shall be designed to standards appropriate for the intended uses, considering safety, cost of transportation, and impacts on land and resources."
-
- Comment 12:** The Forest Service's responsibility to treat multiple use resources of the Tongass as controlling, co-equal factors in forest management is required by both NFMA and the TTRA.
- Response 12:** The Forest Service is committed to multiple use management. The conversion of old growth forest to second growth forest at the project level is not the appropriate scale at which to evaluate multiple use. Rather, the Forest Plan defines a forest-wide strategy for meeting multiple use goals and sustained yield of forest resources.
-
- Comment 12a:** The monoculture created by the level of past, present, and future clearcutting in the project area and adjacent lands is contrary to NFMA-mandated biodiversity.

Response 12a: We disagree that there is a monoculture or the potential for one in the Bohemia area. Past and planned forest stand management on the Bohemia area converts the age class of the forest but does not create monocultures. The species composition of the natural regeneration remains approximately the same as the original stand or even increases the composition of spruce and cedar. Species composition can also be enhanced by silvicultural treatments such as selective thinning. The vegetative cover of the Bohemia area is a mosaic pattern which will remain relatively unchanged with the proposed harvest. The cumulative acres harvested within the study area range from .56 per cent (for the No Action alternative) to a high of 2.6 per cent (for Alternative 5B) of the acres in the study area. These small amounts of area affected are not within a range to affect biodiversity. Please see the 1993 FSEIS, Chapter 3 and Chapter 4, and the 1995 FSEIS, Chapter 4 for the existing conditions and effects of the alternatives on the resources which represent the biodiversity of the area.

Comment 12b: Clearcutting must be consistent with the Alaska Regional Guide, and the Chief's policy on ecosystem management....In addition, the ROD (at 16) claims that *"within the individual silvicultural prescriptions for Bohemia Mountain, a discussion of the alternatives is displayed. Where clearcutting is specified as the preferred regeneration harvest, documentation is provided for the reasons clearcutting is appropriate, and reference is made to the appropriate items in the Chief's letter which apply."* (ROD at 16). Although the ROD is no longer valid there is still a need to provide the above information.

Response 12b: We agree that the ROD mentioned is no longer valid. Please refer to the 1995 FSEIS Appendix A Implementation Direction for a discussion on clearcutting and the other silviculture systems to be implemented within all of the action alternatives.

Comment 13: Due to the lack of a comprehensive effectiveness monitoring program, the Forest Supervisor's expectations that state water quality standards will be met by implementing BMPs is optimistic, misplaced, and undocumented.

Response 13: See the updated monitoring plan in Chapter 2 of the 1995 FSEIS.

Comment 13a: Where is an explanation of the illegal harvesting activities in the Bohemia Unit 534?

Response 13a: Unit 534 was inadvertently harvested during the operation of the Portage Bay Salvage Sale. This error occurred during the 1993 operating season. An investigation and appropriate corrective action has taken place.

Comment 14: ...The intent of Congress in passing TTRA was to eliminate the practice of high grading, whether by independent contractors or long term-operators.

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- Response 14:** The Forest Service does not agree with your interpretation of the intent of TTRA taken from Congressmen Miller's statements. In the text of the TTRA law itself, Sec. 301 of TTRA falls under Title III MODIFICATION OF LONG-TERM TIMBER SALE CONTRACTS IN SOUTHEAST ALASKA. The TTRA requirements for a proportionality test apply only to the long-term sale contract offerings, not to the independent sales. If the Bohemia Sale(s) were to be offered to a long term contract holder, a proportionality analysis would be performed by the Forest Service prior to any offerings to the long-term contract holder.
-
- Comment 14a:** ...According to Table 4-25 (SFEIS 4-45) the preferred alternative will harvest 14% of volume class 6, although this volume class is only present on 11% of the project area. This disproportionate harvest is in direct violation of TTRA....Good forestry practice should know no bounds between long term versus independent sale areas.
- Response 14a:** A formal proportionality analysis is not conducted in the Bohemia EIS and is not intended to fulfill TTRA requirements applicable to analysis for a long-term contract sale. However, the proportions of the volume classes harvested by the alternatives are displayed in Table 4-25, page 4-45 of the 1993 FSEIS. We feel that the harvest in these volume classes is appropriate. The harvest is not disproportionate. We do not feel that Alternative 5B is in violation of TTRA.
-
- Comment 14b:** It is apparent that the size and shape of the Bohemia project area was chosen to skew statistical timber volume figures as well as providing rational to construct the road link to Kake from Portage Bay.
- Response 14b:** We disagree. The Bohemia study area boundary was selected to follow VCU boundaries established in the Forest Plan. By using boundaries compatible with the Forest Plan, we were more easily able to comply with the Forest Plan direction. It is a logical study area. The timber volumes provided are the best estimate available of what exists in the Bohemia area. The Forest Service has not skewed or inflated the timber statistics.
-
- Comment 14c:** ...The agency chose instead to use the TIMCLU soil type polygon database to arrive at figures used in determining proportionality, because the FS considered it to be more accurate for project level planning. However, the use of the TIMCLU database is not standardized forestwide.
- Response 14c:** The merits or demerits of using TIMTYPE database layer for proportionality are out of the scope of this analysis. Please refer to the 1993 FSEIS, Chapter 3, page 36 and Appendix E page 14-15 for a discussion on why the TIMCLU database was used for the timber inventory. The Forest Service is committed to using the best information available. We feel that the TIMCLU database combined with stand examinations and aerial photo analysis provides the best most accurate inventory available. We do not feel that using a less accurate inventory is wise.

The TIMCLU database can be used for future entry analysis. For this project, we feel it is more important to use the inventory which best represents the actual field conditions than to have an inventory which is standardized forest wide. Please see 1993 FSEIS Chapter 4 Subsistence and Wildlife sections for the subsistence determinations.

Comment 14d: In fact, the ADF&G Habitat Division, expressed serious concerns about the nonstandardized use of such databases and the running of the habitat capability models. They concluded the use of the TIMCLU soil type polygons to predict effects on wildlife is inappropriate.

Response 14d: We disagree. The model coding was updated to run using the TIMCLU database. These models are felt to be appropriate and the most accurate to use. The models were not changed; they just ran on more accurate inventory information. Less accurate inventory databases would provide less accurate modelling predictions. ANILCA and TTRA do not specify or refer to the use of any databases.

Comment 15: National Historic Preservation Act

Response 15: In the Shamrock DEIS (at 3-53), the site discovered during cultural resource inventory (May 1, 1992) is the same site referred to in the 1993 FSEIS (at 4-38). The site, PET-211, is a historic log skid. It was discovered outside of any proposed harvest unit including those proposed in the 1991 FEIS, the 1993 FSEIS, and the 1995 FSEIS. The site will not be compromised by any of the proposed Bohemia Sale actions.

According to the State Historic Preservation Officer, requirements for Sections 106 and 110 of the National Historic Preservation Act have been met by the Forest Service.

Comment 16: ...The location of these wetlands in relation to the individual units is unknown....

Response 16: Map 3-1 (page 3-9) in the 1995 DSEIS displays the various wetland categories and the proposed alternative 5B units. This map is also included in Chapter 3 of the 1995 FSEIS.

Comment 16a: The 1995 DEIS still fails to support any claim that the Forest Service has complied with...provisions regarding protection of soils and wetlands.

Response 16a: We disagree. Appropriate BMPs and mitigation measures will be sufficient to protect forested wetlands and steep, unstable soils during logging.

Comment 16b: The use of highlead systems on wetlands is a serious concern

Response 16b: Chapter 4, pages 2 and 3 of the 1995 DSEIS replaces the entire section on Wetlands found in the 1993 FSEIS and is clearly stated in the 1995 FSEIS.

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- Comment 16c:** The FSEIS and 1995 DEIS fail to disclose information assuring the public that forested wetlands will be adequately restocked within five years as required by NFMA.
- Response 16c:** Based on past experience with wet sites, the wetlands will restock within 5 years.
-
- Comment 17:** Tributaries to Duncan Salt Creek and other anadromous fish streams in the area have inadequate protection, as proposed in the preferred alternative. Due to the lack of an effective, systematic monitoring program on the Stikine area there is no basis for the claim that BMP's actually work or that TTRA buffers are windfirm.
- Response 17:** Streams with habitat requiring protection located near the vicinity of harvest units and habitat below these areas are protected under the guidelines of the Tongass Timber Reform Act (TTRA), the Aquatic Habitat Management Unit Handbook (AHMU), and through the application of Best Management Practices (BMP's) as defined in the Region 10 Soil and Water Conservation Handbook (FSH 2509.22) June 1993. Buffers are laid out considering prevailing wind patterns for windfirmness. By implementation of these guidelines, impacts due to timber harvest should be kept to a minimum and fish habitat should remain unchanged.
- The Stikine Area maintains a strong commitment to the Tongass National Forest Best Management Practices (BMP) implementation program and has made substantial progress in monitoring the effectiveness of fish habitat protection measures.
-
- Comment 17a:** In fact, according to ADF&G Habitat Division, Units 501, 505, 508, 515, and 522 require measures such as splitlining and directional falling, and deletion of certain areas from harvest altogether in order to protect anadromous habitat. Why have these points been continually ignored?... There has been absolutely no reanalysis of fisheries protection measures since the first Bohemia Draft EIS...
- Response 17a:** There has been reanalysis of fisheries protection measures since the 1991 Bohemia Draft EIS. Between the 1991 FEIS and the 1995 FSEIS, the following changes were made on the above units: Unit 501 - 6 acres were dropped from this unit and a TTRA buffer was added to the Class II stream bisecting the unit in the 1993 FSEIS, to better protect the fisheries resource. Unit 505 - Both v-notches will be splitlined. Unit 508 - The Class III stream within the unit is not a v-notch. Please see unit card, Appendix A, 1993 FSEIS, for stream protection measures.

Unit 515 - 27 acres have been dropped from this unit to better protect fisheries habitat and the Class III stream within the unit will be splitlined. Unit 522 - Class III streams in this unit will have the minimum of partial suspension and will be splitlined where possible.

Comment 17b: The Forest Service has a duty under NEPA to disclose, evaluate, and apply protection standards included in the assessment.

Response 17b: Please see Response #17 for a summary of the stream protection standards applied to this project. The recently published "Report to Congress, Anadromous Fish Habitat Assessment" (AFHA Report) provided some recommendations for improving fish habitat protection of the Tongass National Forest. Many of the recommendations focus on the Revision of the Forest Plan. Others are directed at project implementation but are somewhat long-term in nature (such as refining definitions, and classification and inventory schemes). A couple of the recommendations, one related to monitoring and one related to protection of intermittent and ephemeral channels, can be addressed for the Bohemia project.

This project does include a monitoring plan. Riparian buffers along fish streams will be monitored as will a number of other Best Management Practices (BMPs) designed to protect water quality and fish habitat.

The other recommendation is a suggestion for increased protection of intermittent and ephemeral streams. Some of this additional protection is already designed into the Bohemia Mountain Timber Sale. Whenever practical, harvest settings are split along these streams, and the harvest prescription calls for leaving unmerchantable trees standing along these boundaries to protect water quality.

Comment 18: Biodiversity

Response 18: See Response 12b.

Comment 18a: The Management Direction for Management Area S-10 in the TLMP Amended 1985-86 says "key deer winter range will be given a high degree of protection." Selection of the preferred alternative does not meet this standard.

Response 18a: TLMP Amended 1985-86 specifies "Key winter range will be given a high degree of protection, especially along the north shore in VCU #424." Though this definition is subjective (i.e. high degree of protection), the effects on deer within this VCU are minor. In the 1993 FSEIS, Table 3-6 displays the 1954 and existing condition habitat capability for Sitka black-tailed deer to be 1012 and 1010 deer respectively. Table 4-12 displays the effects of the alternatives on habitat capability. The preferred alternative would decrease the deer habitat capability to 983 approximately 25 years into the future. This is a change of habitat capability within the VCU of 29 deer.

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- Comment 18b:** Fragmentation of the Bohemia area, and entering unfragmented blocks of old growth with little regard for the preservation of mature fully functioning ecosystems is not concurrent with the federal mandate for biodiversity required by NFMA.
- Response 18b:** The 1993 FSEIS, chapter 4, Pages 17-21, displays the effects to the old-growth blocks within the study area.
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- Comment 18c:** For this project, the Forest Service discussed the HCA concept but did not adopt it, and rather, according to ADF&G, offered it as an inadequate substitute for retention.
- Response 18c:** The 1993 FSEIS did not display HCAs as a way of meeting the retention requirements of the current TLMP. Chapter 4, pages 20-21, Consequence D, discusses the retention of operable CFL. Table 4-18 displays the number of acres of high value habitat to be maintained in an old-growth condition for the life of the project. Map 2-1 displays the location of the acres to be retained.
-
- Comment 18d:** The preferred Alternative has two units (Units 519 and 520) and substantial roading within the medium HCA, and two units (Units 524 and 530) within the small HCA.
- Response 18d:** Alternative 5B proposes an alternate medium HCA which does not have any roading or harvest units within it. Units 524 and 530 are not within the small HCA; please see Map 4-1 and Map 2-5 in the 1993 FSEIS. The issue of species viability continues to be addressed at the Forest (Tongass) level.
-
- Comment 19:** ...Logging on slopes greater than 67% is prohibited and is not consistent with ACMP....The Mass Movement Hazard Index is used to determine what soils are suitable for clearcutting. Research in Southeast Alaska has shown that the majority (75%) of landslides inventoried have occurred on slopes over 67%....Although landslides, in general, are discussed in the FSEIS (at 3-7), the actual logging planned on slopes greater than 67% is not disclosed or analyzed.
- Response 19:** Landslide hazard classes are used to group soil map units that have similar properties relative to the stability of natural slopes. The three classes, high, moderate, and low, rank soil/landtype units according to their relative potential for mass wasting. While slope gradient is the primary site factor determining the stability of natural slopes, soil and geologic properties such as cohesion, moisture regime and the presence of a prominent slip plane are used to determine relative stability of soil/landtype units. The Moderate Landslide Hazard Class is defined as generally stable in an undisturbed condition. This class generally includes most well drained soils on slopes ranging from 35 to 75% as well as some somewhat poorly and poorly drained soils on slopes of 35 to 65%. Soil/landtypes in this class can be safely managed without high risk of landslides by application of management practices designed to maintain the shear strength of soil and roots and avoid increasing the effective weight of the soil mass. Please see the 1993 FSEIS Chapter 4, Soils section.
-

Comment 19a: ...It appears from examination of topographic lines that several units will involve logging on slopes of over 75% gradient. (#'s 510, 511, 520, 524, 530, 534).

Response 19a: Examination of topographic lines (100 foot contour interval) shows the following calculated maximum slope gradients for the units in question. This was derived by plotting the change in elevation (feet) by the horizontal distance (feet) for the steepest portion of the unit. Refer to the 1993 FSEIS Appendix A, pages 25, 27, 43, 51, 57, and 59.

<u>Unit #</u>	<u>Calc. Maximum Slope Gradient</u>
510	38 percent
511	43 percent
520	43 percent
524	75 percent
530	50 percent
534	75 percent

Field data profile information indicate that the above calculations are correct for units 510, 511, and 520, although these units do have minor areas of steeper or gentler inclusions. Field data profiles do not exist for units 524 and 530, as these are helicopter yarding units. We agree there are steep (75% and 50%, respectively) portions within these units, but their well-drained nature coupled with the application of management practices mentioned in Response 19 above will minimize the risk of landslides.

Unit 534 was inadvertently harvested by the Portage Bay Salvage Sale during the 1993 operating season. Most of the terrain in this unit is gentle (<20% slopes), with some medium to steep slopes at the upper (northern) boundary. Slopes at 75% gradient are minimal and only for short distances within the unit. Field notes indicate the average slope gradient for Unit 534 is 35%.

Comment 20: ...a Geotech engineer will be needed "to analyze the unstable *blue clay deposit located directly above the stream crossing at site 'E.'*" The road description cards contained for Road 45601 and 45603 indicate, "on sideslopes of 55% and greater do not sidecast excavated material and endhaul to a designated waste area."

Response 20: Please refer to the 1993 FSEIS page 4-8 for a discussion of "blue clay" soils. Portions of roads 45601 and 45603 do have sideslopes greater than 55 percent and roads on these areas will be constructed with full bench design and end haul of overburden to minimize chance of soil failure.

Comment 21: The long term needs of fish and wildlife will not be met with the proposed selection of HCA'S in the preferred alternative, since they contain very little of the identified high value wildlife habitat in the sale area and consist of mostly low volume or inoperable stands, and/or on north facing slopes.

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- Response 21:** The HCAs would meet all objectives specified by the viability committee. For small HCAs, one of the objectives specifies that lands not suitable for timber harvest, existing buffers, and other lands removed from timber harvest should be used to the extent practicable. Thus inoperable stands are not restricted from being within an HCA. Inoperable stands are not always low value habitat. Please see the 1993 DSEIS Map 4-1, which displays the HCAs, and Map 2-5, paying close attention to the contour lines. Utilizing these two maps together, one can observe that the small HCA is on an east or southeast slope, while the medium HCA encompasses several aspects. Also, TLMP direction (TLMP Amended 1985-1986) specifies protection of deer habitat, especially along the north shore in VCU #424. Thus, it is logical to protect deer habitat and provide habitat for species viability together if possible. Please see Map 2-1 which displays the volume classes within the study area. Most of the small HCA consists of volume class 5 or greater timber, while the medium HCA consists of a variety of volume classes. As specified in Table 4-17, 2,803 acres of volume class 5 or greater timber is within the medium HCA. The viability committee specified at least 2,500 acres in volume class 5 or greater timber.
-
- Comment 21a:** As previously requested in our comments to the Forest Service's recent Environmental Assessment (EA) for their proposed TLMP amendment to develop a Habitat Conservation Area (HCA) strategy we again request, where applicable, that:
1. No logging or road building occur in high Volume Class 6 & 7 old growth...below 800 feet elevation....
- Response 21a:** The Regional Office is currently working on a strategy for maintaining viable populations on the Tongass National Forest. Your suggested guidelines are being considered.
-
- Comment 21b:** Also as per our comments we request the proposed alternatives follow the VIAPOP Committee's recommendation for wildlife corridors.
- Response 21b:** Old growth travel corridors have not been specified within the document, numerous old-growth connections do exist. As displayed on Map 2-1, the beach fringe, Duncan Salt Chuck Creek, Portage Creek, and other areas provide connections between the medium, small, and large HCAs (Petersburg-Duncan Salt chuck Wilderness).
-
- Comment 21c:** We continue to request that full and serious consideration be given to enlarging the North Kupreanof medium HCA 60 to include important habitat on south Bohemia Mountain, and extension of the Petersburg Creek-Duncan Canal Large HCA 23 to include the "isthmus" between Portage Bay and Duncan Canal. The modifications would allow for dispersal of wildlife on north Kupreanof to the wilderness area and southward.

Response 21c: This isthmus is the only land connection between Lindenberg Peninsula and the rest of Kupreanof Island. The isthmus between Portage Bay and the Duncan Salt Chuck is approximately 2.6 miles wide. Of this 1.75 miles is within the Petersburg Creek-Duncan Salt Chuck Wilderness. This area within the wilderness will more than adequately provide an area for animal dispersal between Lindenberg Peninsula and the rest of Kupreanof Island. There are many areas which provide exchange between the north and south Kupreanof Island (e.g. beach fringe along Frederick Sound, Rocky Pass, and both sides of Duncan Canal). Contiguous old growth also exists which links the study area to the wilderness area. Duncan Salt Chuck Creek provides a corridor between the Wilderness and Bohemia Mountain. Also, Portage Bay and the Wilderness are linked by an old growth corridor along Portage Creek and an area west of unit 538. Note: the upper portion of unit 538 was dropped to provide this corridor.

Comment 22: The FSEIS (at 4-39) indicates that visual quality outside the river corridor would be managed in accordance with adjacent land use designations....FS Handbook Regulations...require that "timber outside the corridor for wild and scenic status, but within the viewshed, be managed and harvested in a manner which provides special emphasis to visual quality". [emphasis added]. This requirement plainly provides that timber outside the corridor is subject to special management to protect visual resources, regardless of the particular value or values that led to a determination of eligibility.

Response 22: We agree and have applied special emphasis to visual quality.

Comment 22a: NCC maintains that clearcutting does not provide special emphasis to visual quality....Nowhere is there evidence that alternative harvest systems were ever considered to protect visual quality in the viewshed of Duncan Salt Chuck Creek.

Response 22a: The harvest method of clearcutting unto itself does not imply degree of visual impact. Design elements can be incorporated to size and shape a clearcut to lessen the visual effects. We have used these measures and the visual quality objective of Partial Retention as a measurement of impact, to provide special emphasis to visual quality.

Comment 22b: ...It appears that Unit 506 infringes on the eligible wild and scenic river corridor of Duncan Salt Chuck Creek.

Response 22b: The boundary of Unit 506 was measured on the ground and verified to exceed 1/4 mile from the high water mark of Duncan Salt Chuck Creek. See unit card for Unit 506 in Appendix A, 1995 FSEIS.

Comment 22c: The FSEIS treatment of these cutting units, with regards to visual quality, is confusing and conflicting.

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- Response 22c:** We apologize for the conflicting information. The information you refer to on page 4-41 of the 1993 FSEIS and Unit 510 was corrected in the 1995 FSEIS to indicate all units visible from Bohemia Lakes have been designed to meet the Partial Retention visual quality objective.
-
- Comment 22d:** According to the definition, a partial retention VQO suggests "maintaining for little or no visible change in the landscape." (FSEIS 3-33). How is a huge clearcut, on the side of a mountain, in full view of the river corridor meet this definition?
- Response 22d:** The quotation you reference was not cited in its entirety and reads, "...VQO's of "partial retention" and "retention" suggest managing for little or no visible change in the landscape." The visual quality objective of Partial Retention does describe "little" visible change in the landscape. A further description of Partial Retention is found two paragraphs below and reads, "Under the partial retention objective, management activities may be evident but should remain subordinate to the characteristic landscape. Natural forms and patterns should remain dominant." A definition of Partial Retention may also be found on page 12 of the Glossary. Only a small portion of Unit 510 is visible from Bohemia Lakes and does not appear as the "huge" clearcut you describe.
-
- Comment 22e:** ...The planned unit card for Unit 510 (FSEIS at A-24) indicates the uphill boundary line will be joined with the alpine muskeg as much as possible...". However, in the discussion on Affected Environment in the document, it was noted that "there are few alpine areas with the Bohemia analysis boundary."
- Response 22e:** The alpine muskeg you refer to for Unit 510 is one of the few alpine areas within the Bohemia analysis boundary.
-
- Comment 22f:** We also question why Units 501, 502, 503, 511, and 508, were not considered to be within the viewshed of the Bohemia Lakes, since topographic lines indicate they can probably be seen from that location.
- Response 22f:** It was field verified that these units are not visible from Bohemia Lakes.
-
- Comment 22g:** We also note the serious omission of any "sensitive viewpoints" from the Duncan Salt Chuck/Petersburg Creek Wilderness Area included in the FSEIS, to assess the impacts of clearcutting and roading in the viewshed as seen from the heavily used Duncan Canal and the Wilderness Area.
- Response 22g:** The Affected Environment (1993 FSEIS 3-32) does mention a seldom used hiking trail passing from Petersburg Lake to Portage Bay to Duncan Salt Chuck (Portage Mountain Loop Trail) as offering views through muskeg openings to portions of the analysis area not seen from saltwater. The trail was not found to have use significant enough to identify as a visually sensitive travel route. Visibility from Duncan Canal is in the distant background approaching 10 miles or more and obscured by Kupreanof Mountain.
-

Comment 23: The FSEIS claims that unit modifications may be made in the field....We suggest the final EIS be corrected to point out the illegal nature of unit expansion by field personnel.

Response 23: Please see the 1995 FSEIS Appendix A, Implementation Direction for a revised Unit Map clarification which replaces Appendix A-5 in the 1993 FSEIS. Unit changes will not occur without appropriate environmental analysis and approval.

Comment 24: ...The FSEIS fails to completely assess impacts to two species of concern on the Tongass - the Queen Charlotte Goshawk and the Marbled Murrelet.

Response 24: The 1995 DSEIS, Chapter 4, Page 4, displays the number of goshawk survey stations (435) conducted. The large number of surveys conducted for this project with no nests found indicates the chances of impacting goshawk nesting areas are low. The 1993 FSEIS, Chapter 3, Page 19, displays the results of marbled murrelet boat surveys. These numbers were lower than some other areas on the Petersburg Ranger District. Other studies suggest that when boat surveys are low, the corresponding inland population is also small. Thus, it is likely that there would be even less of an impact on the regional population. In the 1993 FSEIS, Chapter 4, Page 21, it states that the percentage of old-growth habitat removed may lead to a similar percent reduction in the murrelet population. Further studies are being conducted within Region 10. There are currently no standards and guidelines developed for habitat protection of marbled murrelets at the stand level, nor are any foreseen in the near future.

Comment 24a: ...Steve Blatt Jr. recommended in a 2/14/95 letter that additional surveys be conducted during the 1995 breeding season near the areas where there have been goshawk sightings.

Response 24a: All three of the sighting areas mentioned in the 2/14/95 letter were investigated again during mid-June 1995. The surveys yielded no indications of the presence of goshawks in any of these areas.

Comment 24b: Why weren't impacts to marbled murrelets mentioned in the 1995 DEIS?

Response 24b: Marbled murrelets were not addressed in the 1995 DSEIS since they were addressed in the 1993 FSEIS and changes have not occurred in their status (i.e. still a candidate species).

Michael Medalen
 Box 969
 Petersburg, AK.
 99833
 June 12, 1995

Abigail Kimbell
 Forest Supervisor, Stikine Area
 USDA Forest Service
 P.O. Box 309
 Petersburg, Alaska 99833

JUN 12 1995
 10:34:23 A.M.

re: Bohemia DSSEIS Comments

Dear Ms. Kimbell:

Since so many concerns have been raised concerning the Bohemia Range sale, by myself and others, and so few of the public's concerns have been adequately addressed and answered, much of what I have to say has an air of redundancy about it. I assume that Narrows Conservation Coalition, the City of Kupreanof, and the Alaska Forest Association are again requesting that you address their concerns brought to light in the last appeal so I will concentrate on mine that have been ignored. I have made numerous references to the now dead ROD as indicators of prevailing Forest Service attitudes and opinions.

Almost all of the impacts to old growth-dependent species by the results of this sale will be permanent and cumulative in the scope of the Forest Service's projected 100-year rotation. By basing decisions on slipshod environmental studies like the Bohemia Mountain Timber Sale EIS's the Forest Service not only jeopardizes the futures of those of us who live our lives here but also make a mockery of the entire forest management process.

I believe that subsistence users will face unwarranted restrictions to subsistence use of deer, black bear, fur bearers, waterfowl, fish, and other resources as a result of the proposed actions. } 1

If the Forest Service is really serious about their claim of cutting on a 100 year rotation, inadequate though it is to protect all forest resources, they should at least consider all major impacts of the past 100 years. Starting in the mid-50's the Reid's, Carr's and others heavily logged the beach timber on the west side of Portage Bay. Although this has restricted deer use of those critical wintering areas and will continue to have an adverse impact on deer populations in Portage Bay for many years to come, the Forest Service failed to even consider this past Forest Service activity that has major impacts to subsistence use of deer. } 2

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#1 B

The FS further goes on to claim that the restriction is due only to changes in abundance and distribution. (FSEIS 4-25, 1995 DSSEIS). I have reason to believe that subsistence use of deer will be restricted over the whole project area under the preferred alternative due to changes in access, competition, and distribution and abundance. Whether or not the road systems between Portage Bay and Kake are connected, I believe when considered as a whole, the area has been and will be significantly altered, and yet the Forest Service claims there will be no impact to subsistence anywhere but the east side of Portage Bay due to past harvest activities.

Table 4-22 in the FSEIS shows changes to abundance and distribution of deer in the study area for alternatives 3, 5B, and 6, but none for alternative 4A. Yet in the now defunct ROD (at 5) Forest Supervisor Kimbell claims:

*" The FSEIS did find that there may be a significant possibility of a significant restriction in the distribution or abundance of deer in the project area. This restriction may take place **regardless of which alternative** is implemented because of past timber harvest activities within the analysis area."*
[emphasis added].

3 { This is confusing in light of the fact that alternatives 1 and 4A are claimed in the FSEIS (Table 4-22) to produce no restriction in abundance and distribution of deer. Yet the FSEIS claims there will be a restriction in abundance and distribution in alternative 3 which results in less impacts to deer habitat capability than alternative 4A. In the FSEIS (at 4-16) alternative 4A is claimed to reduce habitat capability by 23 deer and alternative 3 is claimed to reduce habitat capability by 15 deer. This indicates a total lack of coordination in compiling and assessing critical impacts to wildlife habitat. Likewise, there has been no analysis of the past changes in distribution and abundance as a result of previous timber harvest activities. That a decision can even be made based on such shoddy work defies rational explanation. How can a new ROD be issued when such obvious confusion exists?

4 { To adequately address impacts to subsistence, all of the area logged and roaded on the east side of Portage Bay should have been included in the study done, as the cumulative effects are of concern to subsistence users. There is a dire need for an area analysis of Kupreanof Island of present and future impacts to subsistence by Forest Service activities. As the ADF&G Area Habitat Biologist said:

" Each road/logging plan that is implemented adds to the risks to fish and wildlife resources."

Exhibit A of my intervention was basically a compilation of comments and concerns submitted by ADF&G to DGC on the proposed project throughout the planning process. Since DGC is charged with

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protecting the resources that I use, I am disappointed that so much of this input has been ignored.

I have serious concerns whether my subsistence comments submitted for the FSEIS, or those of others, were even considered prior to the Record of Decision. During my inspection of the planning record for this sale, I failed to locate any assessment of the concerns raised at the September, 1993 subsistence hearings. Dave Helmick, IDT team leader, told me such a document should be in the subsistence section of the planning record. As it was not there I believe it doesn't exist. I did locate a "Subsistence Resource Inventory Report". However, this document was dated April, 1993 - five months prior to the latest subsistence testimony. In my comments below I mention the FS failure to consider one of many major concerns brought up in these hearings dealing with mitigation of competition for subsistence resources by temporary residents at the logging camp.

Historically all deer hunting was done from beach access as there were no roads into the area. This had the effect of maintaining inland habitat to support stable populations. Since entry into some of the area required greater effort, the deer herds in these areas were impacted less providing a reserve population for hunters to draw upon.

The proposed roading will eliminate this reserve by providing access directly to these areas. The first time road #6030 from Kake, locally known as the "White Rock Road" or the "Road to Nowhere," was ever used to access deer on Bohemia Mountain was in 1993, since the area had been closed to deer hunting in 1975. The proposed 4.5 mile extension of road #6030 will access Bohemia Mountain directly. The Environmental Analysis for construction of this road did not acknowledge any restriction to subsistence use of deer.

The latest defunct Bohemia ROD (at 5) acknowledged that the existing and proposed road system will increase access to areas traditionally used for subsistence, however it claimed that that this increased access will not be significant. The claim was also made that traditional means of access will remain the same under any of the action alternatives. I disagree because:

1. The area southwest of Bohemia Mountain and the east side Portage Bay has been extensively roaded and clearcut since deer hunters last used the area prior to 1993. This is significant.

2. The ROD (at 5) claimed that traditional means of access included only "foot, boat, or floatplane." However, for the first time since 1975 deer hunters using vehicles can access the area via the Alaska Marine Highway on the Kake side, and access the east side of Portage Bay by motorized vehicles transported by boat. This is not traditional access.

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In fact, ADF&G Habitat Biologist Don Cornelius wrote in comments on the FSEIS in a memo to Lorraine Marshall of the Division of Governmental Coordination (DGC) that:

" Construction of the road connection across the Portage Bay Isthmus also significantly increases the likelihood that a road connection between Portage Bay and Kake and/or Petersburg to the sale area will occur in the future, thus greatly increasing potential impacts to marten as well as other wildlife in the area."

It is quite obvious that access has been and will be changed significantly as a result of past and proposed Forest Service activities in the study area. The failure of the Forest Service to consider and analyze all the impacts resulting from such activity in this planning process violates NEPA and ANILCA.

As discussed above, access to the project area will be altered to favor road hunters, including sport hunters accessing the area by ferry, and logging and agency personnel, thereby increasing competition for the subsistence resources I depend on.

8 { No measures to mitigate competition were proposed for the sale despite requests by numerous individuals and organizations in subsistence testimony for this sale. Area Habitat Biologist Don Cornelius expressed such concerns in his comments to the FSEIS and ROD for this sale, in reference to black bear and furbearers, that

" We believe the most appropriate way of controlling black bear (as well as furbearer) harvest during timber operations would be to include a prohibition against hunting by logging camp residents as a requirement of the timber harvest contract or by asking the camp operators to establish such a prohibition voluntarily."

This also holds true for deer, moose, and waterfowl. Despite serious concerns over competition brought up at the subsistence testimony for the FSEIS the Forest Service failed to adequately address the issue by claiming simply that "the Portage Bay logging camp will only be used on an intermittent basis." (ROD at 5). The 5-Mile Timber Sale, for which the Forest Service will probably try to claim a necessity to use the Portage Bay logging camp, is scheduled for 1995. There is a likelihood that another salvage sale, similar to the Portage Bay Salvage Timber Sale, may occur as a result of blowdown resulting from the Bohemia sale. There is every reason to expect competition to be more than "intermittent" since the Forest Service has a major administrative facility in Portage Bay. Why hasn't this concern been addressed.

Intermittent or not, over the past decade I have noticed the effects of increased activity in Portage Bay on my duck and goose

hunting. It never has taken much hunting activity to chase the birds out of the bay into the back country and Duncan Canal. If you arrive to hunt waterfowl in Portage Bay immediately after someone else, your chances of success aren't too good. I believe the presence of logging and agency personnel who hunt and fish in the area significantly affects my subsistence use there.

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The defunct ROD (at 5) also claimed that "no increase from non-rural users is anticipated because subsistence use in the area has been very low." From 1975 to 1992 subsistence use for deer in the Bohemia area was nonexistent due to the season closure. However, according to a November 6, 1991 ADF&G Memorandum from the Division of Subsistence:

"As the document correctly notes deer populations in the study area have been in trouble since the mid-1970's. The attached spread sheet shows hunting regulations for deer in from 1925 to 1990 for the study area (GMU 3). Over most of this 65 year period, hunting was open in the study area with multiple deer bag limits in most years. Based on this regulatory history and on studies done in communities whose residents hunted this area, we believe

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that the study area has been an important deer harvest area for most of this 65 year period." [emphasis added].

TRUCS maps presented in Appendix D of the FSEIS are identical to those in the 1991 FEIS. The above Division of Subsistence comments to the 1991 FEIS pointed out a serious failure of the Forest Service to consider the importance of the project area to local subsistence users:

"2e. Maps presented in appendix D shows that

- 1) portions of the study area have been used by residents of Kake, Petersburg and Wrangell for deer hunting (ever hunted deer)
- 2) high rates of use for deer hunting (ever hunted deer) were estimated for Petersburg and Wrangell
- 3) portions of the study area also show high levels of use on previously reliable deer hunting scale, indicating that this was once a deer hunting **hot spot**. [emphasis added].

The facts, according to the Division of Subsistence, lead to the conclusion that the study area has been an important subsistence harvest area for deer through most of the 20th century. These facts were included as a major appeal point in the original NCC November 20, 1991 appeal of this timber sale and the subsequent appeal. Not only did the DSEIS ignore these important appeal points, but the FSEIS ignored them as well, despite

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requests to consider and address them in NCC's comments to the DSEIS. And now we have the DSSEIS ignoring them.

Regardless, the importance of this area for subsistence hunters will become more important over time. As ADF&G game biologist Harry Merriam wrote in a memo to M.M. Perensovich, Sept. 14, 1967 in reference to the study area,:

"I do not think we should assume that these areas are not going to become more important in the future, even without better access...If the hunting is good enough, people are going to get there."

This illustrates that even in 1967 the importance of game stocks such as deer in remote areas were of great concern and competition for game in these areas was expected to increase.

A study done by Sigman and Doerr (Sigman and Doerr, Levels of Human Harvest of Deer, etc., ADF&G Habitat Division Technical Report, Douglas, Alaska, 1986) concluded that the percentage of licensed deer hunters declined significantly after the closure of the deer season on Mitkof and Kupreanof Island. The closure of the season imposed a hardship on many local residents who did not have transportation to areas farther away. These facts were included as a major appeal point in the original NCC November 20, 1991 appeal of this timber sale which was also ignored, as it was in the latest appeal. The interest displayed in local deer hunting since the reopening of the deer season on Mitkof in 1991 and the reopening of the deer season on Kupreanof in 1993 has shown the value and importance of local deer populations in satisfying the high demand for deer that has always existed locally.

12 { The Forest Service violated NEPA and ANILCA by not considering and disclosing the above information to the public. The FSEIS and the DSSEIS are also arbitrary and capricious because the Forest Service did not consider all of the above relevant information or include it in their analysis.

13 { There is no evidence that the older clearcuts at West and Flat Points and south of Dry Cove that I have personal knowledge of, as mentioned above, were considered in "Other Past or Planned Activities In the Surrounding Area," (SFEIS at 40) although four of these past clearcuts were depicted in the map of Operable CFL (FSEIS, Map 3-16) and all of them were depicted on Map 3-17. These units were located in prime deer winter range in areas easily accessed by hunter and were of considerable size. The full cumulative impacts of logging and roading in the study area were not considered or disclosed, violating NEPA and ANILCA.

During my inspection of the Bohemia planning record on December 17, 1993, I discovered documents that included fundamental information never considered in the analysis and

raised serious concerns about impacts to wildlife in the project area. For instance:

"Numerous studies have documented the negative impact of logging on deer habitat in Southeast Alaska (Bloom, 1978; Barrett, 1979; Olson, 1979; and others.)" (Wildlife Specialist Report for the 1982 Bohemia Offering)

In reference to deer on Admiralty and Chicagof Islands:

"Overall, logging reduced the value of the habitat for deer by approximately 80 to 90 percent over the life of the rotation."

These documents clearly show that where there is logging of deer habitat abundance and distribution is negatively affected.

ADF&G Area Habitat Biologist commented on the FSEIS:

"Allowance is not made for important wildlife habitat, the future needs of the people of Alaska will not be met, and there will be an impairment of the land with respect to renewable resources (wildlife)...A minimum viable population of any species is not sufficient to provide for subsistence needs, much less other consumptive and non consumptive uses of wildlife by the people of the State."

The Alaska Department of Fish and Game in a pamphlet describing the results of a study done jointly by ADF&G and the USFS Forestry Sciences Laboratory, published in 1978, on the effect of logging on deer, expressed doubts that the 100 year rotation planned by the Forest Service could maintain adequate habitat to support huntable deer populations:

"The Department of Fish and Game and U.S. Forest Service studies suggest that in Southeastern Alaska deer use of regrowth forests (from one to 147 years old) during mild winters is only a fraction of that found in adjacent or nearby old growth forests. Deer use of regrowth areas during severe winters is likely to be so little as to be almost insignificant." (ADF&G Wildlife Information Leaflet Number 5, September, 1978).

This indicates that the impacts to deer habitat on a 100 year rotation can be considered permanent and the related restrictions to deer will also be permanent. The mitigation of impacts to deer by thinning second growth, as described in the FSEIS (at 4-33), would be worthless because this action wouldn't provide the cover from heavy snow that old growth trees do. } 14

I believe the full impacts of roading the area have not been considered although much of this information was included in the planning record. Roading will affect deer populations detrimentally in several ways: } 15

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7

"Road construction will also affect deer habitat especially in areas with good visibility such as muskegs and subalpine areas. Perry and Overly (1977) showed that main roads through meadows in Washington caused a 95 percent reduction in big game use up to one half mile away from the road. Secondary roads affected deer use up to one-eighth mile in meadows....An area of special concern regarding road traffic is the lowland muskeg area on the north and east side of the Bohemia Range since it bisects two major deer wintering areas."

Further fragmentation of deer habitat will occur in roaded areas. Due to the lack of heavily timbered areas in the southern and western part of the Bohemia study area the deer are dependent on the wooded corridors along the creeks during heavy snow periods. ADFG biologist H.R. Merriam wrote in 1967;

"The absence of timbered hills adjacent to the beach and the large muskegs behind the beach fringe effectively trap deer during much of the winter."

The planned roads will create a barrier between upland habitat from beach habitat when snow build-up exceeds 18 inches.

"Observations also clearly showed the importance of mature timber cover to deer. Dense cover not only provided better shelter for deer, but afforded snow conditions which they could tolerate ...deer will avoid areas when snow depths reach 18 or more inches."

Part of the deer herd remains in their inland summer range until forced by the snow to migrate to the beach timber. This tends to spread out the impact on the browse over a larger area until the deer are forced to concentrate by winter conditions. Since the snow can build-up on the roads to a depth impassable to deer it can have the effect of locking them into inland areas to starve.

In fact, the 1989 Wildlife Resource Report for the Bohemia analysis identified additional wildlife inventory needs for the Bohemia sale. Included in this list of needs was:

"4. Determine winter deer use of mature timber along streams, on steep hills, and throughout inland portion of study area. Determine status of deer population using beach fringe."

If this study was completed I see no evidence that it has been considered in the planning of this sale.

Another impact roads have that wasn't addressed is what's known to biologists as the "Cafeteria Effect". While it is difficult for deer to traverse the roads in winter, the wolves use the roads as major travel corridors since they are able to run on

8

top of the snow because of the large size of their padded feet. This use of roads tends to lead the wolves into areas of deer winter range, sometimes where they normally wouldn't go. With the fragmentation effect of roads and clearcuts the deer will be effectively trapped in the narrow leave strips between units by snow accumulations and are easy prey for wolves. This creates a real wolf "cafeteria".

17 cont.

I have spent many months observing the numerous wolves that frequent the area. My personal observations of wolves in the Portage Bay area are that the heaviest use by wolves is at the head of the bay, or "isthmus", where numerous trails come together. The second most heavily used area is the west side of the bay back to Bohemia Mountain. The area least used by wolves is the east side of Portage Bay. If this has not already been changed by the roads there, it will be if a road is built across the isthmus.

18

Also included in the list of needs in the 1989 Wildlife Resource Report for the Bohemia analysis was:

*"6. Identify wolf travelways and high use sites.
Identify deer migration routes to and from winter range areas."*

My inspection of the planning record reveals no accounts of any wolf studies completed for this project. Since there is a relatively large population of wolves in the study area I think it is important to address the potential impacts on them before any action is taken. Since it has often been cited in ADF&G as well as FS documents that the reason for the drastic decline in the deer population on Kupreanof Island was due, at least in part, to the high number of wolves on the island, I find it difficult to understand why a serious study of wolf use of the area was not completed. This study should have been completed and considered prior to a decision.

19

In a recent investigation of the Bohemia planning file I found a copy of 1991 paper entitled "Status, Biology, and Conservation Concerns for the Wolf in Southeast Alaska" which indicated "Road-building and other development should avoid historic high-use corridors of wolf travel. These areas shall be identified at the project level." Until this is accomplished the planning for this sale should not be considered complete.

Also included in the 1989 Wildlife Resource Report is a mention of the importance of beaver areas to other wildlife such as waterfowl, snipe, bears, moose, mink, otter, wolves, certain fish, and cavity dependent wildlife species. It states:

20 cont.

"Roading near these areas should be avoided where possible. Management prescriptions need to be developed for each beaver area that may be impacted by logging."

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9

20 cont. { The only mention I found of beavers in the FSEIS is on pg. 2-5 where beaver ponds are mentioned in passing. There is no mention whatsoever made of beavers in the discussion of affected environment under "Wildlife". Given that 10% of operable commercial forest land (CFL) is "inland meadow (such as beaver pond meadow)", it is odd that beavers weren't even mentioned under "Other Species of Interest" in this section, nor have I seen any evidence that the "management prescriptions" needed were ever developed.

From the evidence, I would conclude that the 1989 Wildlife Resource Report done for this sale was neither read nor considered by the IDT team.

The Forest Service violated NEPA and ANILCA by not considering and disclosing the above information to the public. The FSEIS and the DSSEIS are also arbitrary and capricious because the Forest Service did not consider all the above relevant information or include it in their analysis.

Congress redefined multiple-use on the Tongass, during the adoption of the Tongass Timber Reform Act (TTRA), to mean less timber, more recreation, watershed protection, and wildlife and fish. Because of it's desire to fundamentally alter forest management on the Tongass, the Conference Committee did not include timber in their definition of "renewable forest resource". This omission corroborates Representative Miller's statement that:

"This language requires the Forest Service to meet the needs of resource based industries other than timber..including commercial fishing, sport hunting, sport fishing, and tourism..and provide for non-commodity uses of forest resources for subsistence and recreation." See 136 Cong. Rec. H12833 (daily ed. Oct. 26, 1990).

21 { By failing to give equal consideration to all renewable forest resources, the FSEIS and the DSSEIS violate TTRA.

My family's picnicking, camping, and hiking on the Petersburg/Portage/ Duncan Loop Trail and other places in the study area will be adversely impacted by the decision to further road and clearcut this area. My family and I frequently use the loop trail for access to the area inland from the head of the Bay for recreational and subsistence purposes. The scenic and peaceful qualities my family and I now enjoy and value will be permanently degraded. A large portion of the area's scenery is already adversely affected by the clearcuts on the eastern side of Portage Bay. By changing the recreation opportunities to roaded, the noise and litter created will destroy the peaceful quality of my family's recreation experiences.

22 { Of great concern is the overall reduction in visual quality

10

of the area. Many of the Unit Descriptions express visual concerns. As an example, the unit description for unit #511 (FSEIS, Appendix A-26) raises serious concerns whether the cumulative impacts will be acceptable:

} 22
Cont.

"The unit will be highly visible from Portage Bay due to it's position on the slope. Cumulative impacts may be less than acceptable. Minimize visual impacts."

There is no concrete evidence of serious mitigation of cumulative visual impacts. Minor mitigation may have been accomplished by slight reductions in unit size but, as has happened on Prince of Wales and other places, successive cuttings destroy any value such mitigation may have. The only method to truly accomplish this would be to cut less timber over a longer rotation.

Although the defunct ROD (at 6) claimed that only four percent of the seen area in the Bohemia Mountain VCU would be modified by proposed harvest units. However the cumulative impacts are much greater since, for instance, when viewed from Duncan Canal the whole backside of Bohemia Mountain will be greatly impacted.

} 22a

My family and I are concerned with potential impacts to wildlife viewing opportunities from this sale. For example, the unit description for unit #521 (Appendix A-45) indicates eagle habitat will be impacted. It is unclear exactly what this means. Will eagle nest trees be cut? Will there be a infringement of the USFWS mandated 330-foot buffer near a nest tree? The unit card goes on to claim that 500 foot beach fringe buffer will be maintained. Does this mean eagle habitat will be fully protected or not? Such ambiguity must be cleared up before any action is taken.

} 23

By failing to give equal consideration to all renewable forest resources, the FSEIS and the DSSEIS violate TTRA.

The Forest Service ignores the fact that the long term effects on salmon streams around the Bohemia Mountain have the potential of destroying a greater value in salmon than is harvested in timber. The timber there is described as "marginal" by Tamara S. Skeens in the Bohemia Mountain IDT Minutes of 12/18/90. When a salmon run is destroyed completely it is lost forever due to genetic losses. If the run is only partially lost it still can have long term economic impacts. Many of the salmon streams in Southeast Alaska, that were virtually wiped out by overfishing and creek robbing in the 1950's and before, still have not recovered. I do not see how the harvesting of this "marginal" timber can be justified in these drainages.

} 24

The large salmon and trout runs in Duncan Salt Chuck Creek

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25 { seem to be particularly at risk. I doubt that measures proposed by the FSEIS are adequate to protect anadromous fish stocks. The potential for landslides caused by the roading and clearcutting activities proposed for the south side of Bohemia Mountain poses a serious risk to the salmon runs in Duncan Salt Chuck Creek by introducing silt into tributaries of the creek. According to the FSEIS (at 4-8):

"The upper Duncan Creek watershed, on the southside of Bohemia Mountain, has been identified as an especially hazardous area due primarily to the presence of V-notches deeply incised into "blue clay" deposits. An area of particular concern is the steep gorge of upper Duncan Salt Chuck Creek."

26 { However, Map 3-3 depicts only one small patch of high hazard soils on the southeast side of lower Bohemia Mountain. The area described above is shown as only moderate soil hazard on the map. This contradiction indicates the map is not accurate.

27 { Tables 4-4 and 4-5 indicate there is no timber harvest or roading proposed for high hazard soils. Since these tables are based on the soils map, it is highly probable that they too are in error. These discrepancies must be resolved since cutting and roading on the south side of Bohemia Mountain poses a serious siltation risk to Duncan Salt Chuck Creek and its tributaries which are the V-notches referred to above. Units 505 and 508 and the roads accessing them straddle these V-notches. In reference to unit 505 ADF&G Habitat Biologist Don Cornelius states:

"Thus, unless this unit is helicopter logged, the area between the 2 V-notches must be dropped from the sale in order for us to find the unit consistent with ACMP."

The FSEIS and the DSSEIS indicate no plans to helicopter log this unit.

In reference to unit 508, Mr. Cornelius states:

"To be consistent, [with ACMP] directional falling and splitlining must be used to protect the V-notch which bisects this unit."

The unit description for this unit does not indicate directional falling or specify splitlining.

28 { The inaccuracies of Map 3-3 also raise serious questions about the potential for similar problems on the highly productive creeks # 6 and #7 on the north and northeast side of Bohemia Mountain.

29 { The cutting of Units #536, 537S, and 537N would pose a risk to Portage Bay Creek. Since winds are predominately from the

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southeast and the low lying elevation and topography offers little protection to winds, I believe the 100 foot buffer along Portage Creek and tributaries poses a high risk of blowdown. Little information is presented in the FSEIS describing how the agency considered the effects of blowdown in designing and locating cutting units. Without more information I am not satisfied these mandatory buffers are sufficient to protect fish habitat as required by the Tongass Timber Reform Act (TTRA). Other units at the head of Portage Bay that are close to salmon streams may suffer similar problems. Due to the potential problems with blowdown at the head of Portage Bay I don't believe the planned buffers are adequate to protect the salmon streams there.

29 cont.

Problems with buffers on anadromous fish streams have been addressed by PACFISH (now the Anadromous Fish Habitat Assessment Report) by recommending a thorough watershed analysis. As the appellants stated in their appeal, the PACFISH strategy (or it's equivalent) should be applied to units at the head of Portage Bay as well as other watersheds in the project area.

30

In the FSEIS and the DSSEIS no mention is made of the coho run in Portage Creek. Since coho salmon are such a valuable commercial fish and logging has the potential to adversely affect salmon runs, the Forest Service should have accurate data on cohos in their planning records.

31

By failing to disclose and mitigate all risks to anadromous fish by the actions proposed in the FSEIS and the ROD the Forest Service has violated NEPA and TTRA.

By failing to give equal consideration to all renewable forest resources, the FSEIS and ROD violate TTRA.

The Wild and Scenic Rivers Act of 1968, as amended 1986, declared that "certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations." During the TLMP revision process, the Forest Service concluded that Duncan Salt Chuck Creek was eligible as a "wild" river for all twelve miles of it's length due to it's fish, wildlife, recreation, and scenic, values.

The Act defined "Wild Rivers Areas" as:

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"those rivers or sections of rivers that are free of impoundments, and generally inaccessible except by trail, with **watersheds** or shorelines still **essentially primitive** and waters unpolluted. These represent vestiges of primitive

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America." [emphasis added] (Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), October 2, 1968.

32 { The FSEIS and the DSSEIS for this sale authorizes the clearcutting of 537 acres of temperate old growth forest in the watershed of Duncan Salt Chuck Creek. This includes Units 502, 503, 505, 506, 508, 509, 510, 541. Following the cutting of this area the watershed will no longer be "essentially primitive." According to the unit cards in the FSEIS units in the watershed of DSCC will have a VQO of Modification to Maximum Modification.

33 { I have personally walked the length Duncan Salt Chuck Creek. I fail to understand why the entire drainage was not included in the Petersburg Creek/Duncan Salt-Chuck Wilderness. Duncan Salt-Chuck Creek provides most of the water flowing into Duncan Salt Chuck and any degradation of the watershed threatens the wilderness qualities of the Salt Chuck as well as the eligible river. At the very least this drainage should have had a LUD II designation in order to protect the integrity of this watershed. A LUD II designation, or it's equivalent, would protect this critical area from the impacts of frivolous road building for purchaser road credits and still leave open the possibility of a Kake/Petersburg road and/or powerline if the communities ever grow big enough for the economics of such actions to make sense.

33a { A management proposal of primary importance to my family and I is the possible inclusion of Duncan Salt Chuck Creek, into the National Wild and Scenic Rivers System. The FSEIS and the DSSEIS, however, fail to take the required "hard look" at the impacts from this project on the river.

The key to interim management is maintenance of the status quo until final decision has been made concerning the river's future. Because the final decision on the river's suitability is pending, Forest Service administrative direction also requires that potential wild and scenic rivers be protected to ensure that the river's values are not degraded before final decision is reached on its inclusion in the national rivers system. (F.S. Planning Handbook, Chapter 8, S 8.12, 8.14). The Wild and Scenic Rivers Act contains an anti-degradation clause (See Sec. 10(a) of the Act).

Specific management standards must be developed to ensure that the resource values and free-flowing character of the stream, its tributaries, and adjoining lands are **not degraded**, and that the current classification status of the stream is maintained. As proposed, I believe this project will degrade the outstandingly remarkable fish, wildlife, recreation, and scenic values of Duncan Salt Chuck Creek. These impacts were not disclosed or considered in this FEIS. For instance, there were serious concerns raised by the IDT about any harvest of timber or road building on the incised blue clay deposits present on Bohemia Mountain (FSEIS 4-8):

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"The upper Duncan Creek watershed, on the southside of Bohemia Mountain, has been identified as an especially hazardous area due primarily to the presence of V-notches deeply incised into "blue clay " deposits. An area of particular concern is the steep gorge of upper Duncan Salt Chuck Creek."

As stated above, there are numerous tributaries to DSCC contained in units on Bohemia Mountain, along which directional falling and splitlining is required.

The basic standard of review in the DSSEIS should have been whether the project will affect conditions of free flow and have a direct and adverse impact on the values for which the rivers were found eligible. (letter from FS Associate Chief George Leonard to Regional Foresters, October 30, 1992). This basic standard of review is totally lacking in the DSSEIS.

In the summer of 1993 the Clinton Administration initiated a National Forest policy abandoning the common practice of deficit timber sales. To the detriment of the American people, the Tongass Forest Service doesn't seem to have instituted this policy. Due to the low value of the timber on Bohemia Mountain and the high cost of accessing that timber, including the many miles of unnecessary road proposed, the preferred alternative is in direct conflict with national policy. } 34

It is known by all interested parties that this sale is mainly about road building. Since the proposed road across the isthmus between is not, and never will be, economical in the context of a timber sale, it should never have been seriously considered as a viable option in light of the actual and potential negative impacts to wildlife and present user groups. In fact, in minutes from a Bohemia IDT meeting Tamara Skeens stated: } 35

"Sam said that Bohemia Mountain would never pay for the roading. The fixed costs are driving the whole issue and they are too high."

Table 2-4 of the DSSEIS bears this out. It estimates a return of negative \$84 per MBF for the preferred alternative. This means that once again the taxpayer will foot the bill for a deficit timber sale in "marginal" timber. Even these estimates are over optimistic.

The camp manager in Portage Bay during the harvest of the Todahl Timber Sale told me several million board feet of timber from that sale was too small to run through the barkers at the Haines mill and was therefore was useless for anything other than fire wood. (personal communication). Having hiked in the Bohemia Range, I believe that a large portion of the timber proposed for harvest there would also be useless to the mills in Southeast Alaska. } 36

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37 { The additional unnecessary road miles proposed for the preferred alternative (Road 6031) will pose problems not yet addressed. Looking at unsafe driving conditions and poor maintenance of Forest Service roads on Mitkof Island connected to Petersburg, little or no money is available for improvements and maintenance of Forest Service roads once they are built. Concerns have been expressed by the ADF&G Habitat Biologist;

"The less the roads are maintained or soil erosion areas stabilized, the greater the risk to fish and wildlife. If the USFS is going to continue to add to the Stikine area road system and number of areas harvested, they must also make an equivalent commitment to maintaining those roads and soil stability. Responsible management requires use of ever increasing proportions of the budget for this ever expanding purpose."

Mitkof Lumber Co. General Manager, Greg Harris, in his comments on the 1991 FEIS (Appendix H-49) expressed concerns about the economics of the sale and whether an independent operator could bid on it and successfully complete it:

"Based upon the timber data and economic factors used to develop the preferred alternatives, it is my opinion that the timber sale will be uneconomically feasible for an independent operator to bid on and complete."

Ketchikan Pulp Co. and the AK Forest Association have also expressed concerns about the economics of this sale and both are on record as being against the construction of Road 6031.

38 { While the Forest Service's response to worries about the sale economics expressed by Mr. Harris and several other persons at that time was that the cost would be amortized over time, it is obvious that the timber volume available west of Portage Bay is unlikely to support future sales. As I have said above, the loss of the present values will be high and these costs have not been figured into the overall price of this frivolous roading exercise. The idea that this road will be a boon to recreation, in light of the concerns expressed in public comment to the contrary, and the fact that there are already extensive road systems available to the residents of the area for recreation, is ridiculous. As for the administrative uses mentioned, since this timber sale will cut most of the economically viable timber present in the study area west of Portage Bay and the road will cost the taxpayers so much, it will be cheaper to do the amount of administration required, in that portion of the study area, by helicopter.

Mr. Harris also expressed serious concerns about sale economics in the preferred alternative ranging from minus \$54/MBF to minus \$60/ MBF in his 1991 FEIS comments. The economics for the FSEIS preferred alternative are estimated at minus \$79/ MBF, an average 28% increase in deficit returns to the U.S. Treasury over

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the figures he had concerns about. Now the estimates for the preferred alternative are minus \$84/ MBF.

There are numerous references to Kake/Portage/Petersburg Road (in the FSEIS at 1-7, 4-47, Appendix E-13-14 and B-14, and the DSSEIS at summary-2 and appendix-B) indicating that road 6031 "may contribute to a Kake-Petersburg connection". Forest Supervisor Kimbell has claimed (ROD-7) that:

"While the decision concerning a Kake/Petersburg road connection is outside the scope of this project, it is an associated issue that is discussed in the cumulative effects section of this document."

However, inspection of the cumulative effects section of the document reveals only minimalist treatment of the cumulative affects. Although the 5-Mile Timber sale has not undergone scoping it is scheduled for 1995. The completion of the road system for the 5-mile sale will bring the Kake/Petersburg road system "to within 6 miles of Petersburg." (ROD at 7). The Forest Service violates NEPA and ANILCA since the cumulative impacts resulting from construction of the entire length of road must include more than their cursory treatment.

An interesting Forest Service practice is illustrated by the positive assertion in the defunct ROD (at 7) that the 5-Mile sale "would add an additional ten miles to this road system". The process of decision making most prevalently used by the Forest Service is to decide what they want to do and then warp the study to fit the preconception. This widespread custom appears to have led to the Forest Service's own peculiar brand of sophistry that is common in the agency. As has been shown, this was done in regard to the road across the isthmus between Portage Bay and Duncan Canal. The 5-Mile sale promises more of the same. This odious practice of decision making prior to the environmental analysis violates NEPA.

The Forest Service's efforts to designate HCAs as a way of meeting the retention requirement for this project plan is contrary to current forest-wide direction as contained in the 1985-86 TLMP Amendment. Since the 1985-86 TLMP Amendment has not been superseded, the 1985-86 Amendment still applies.

In Appendix D of the 1985-86 TLMP Amendment, the Forest Service disclosed Forest-wide procedures for implementing wildlife and fisheries retention. Several points are relevant:

1. *"Where a retention prescription that precludes timber harvest is applied, the actual number of selected acres shall be utilized in comparing to the retention acreage estimated in TLMP. (at p. D-2)."*

2. Definitions of essential habitat for the emphasis species and categories or potential MIS shall be developed and used to identify key areas of old growth habitat. ...Areas of old growth forest in LUDS III and IV that meet the definitions of key habitat shall be identified for consideration as retention areas during area analysis.

3. When implementing retention prescriptions during project planning, "[s]pecific configurations under consideration for retention, and associated retention prescriptions, shall be built into each management alternative evaluated by the IDT. **All areas considered for retention must be fully displayed in the NEPA planning documents for each project.** As a minimum, information presented for each area to be considered for retention prescriptions must include:

- (1) location of the respective WHMU or FHMU;
- (2) acreage contained within the prospective retention area by timber and volume class;
- (3) species to be featured;
- (4) specific retention prescription (i.e., Retention Factor); and
- (5) description of habitat values to be maintain or enhanced by managing the unit under the prescribed retention treatment." [emphasis added].

See Appendix D-3 & 4.

The FSEIS and the DSSEIS completely ignore the retention provisions of the 1979 TLMP. They fail to identify any of the acres maintained as "old growth conditions." By failing to apply retention provisions for this FSEIS and DSSEIS the Forest Service violates TLMP. Although the choice of Habitat Conservation Areas could possibly have provided a workable substitute for retention, in this case it did not meet the retention objective.

In conclusion, this FSEIS and DSSEIS violate NEPA, ANILCA, TTRA, and agency direction. This study should be completely redone to comply with the laws of the United States and to show consideration for present and future inhabitants of the area. In addition, an Area Analysis must be prepared that at a minimum analyzes the environmental impacts from all proposed projects in and adjacent to the Bohemia Mountain Study Area, particularly the long term effects of the 100 year timber rotation on the local deer population.

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Thank you for considering these comments.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael D. Medalen".

Michael D. Medalen

cc Narrows Conservation Coalition

Letter from Michael Medalen

- Comment 1:** ...Subsistence users will face unwarranted restrictions to subsistence use of deer, black bear, fur bearers, waterfowl, fish, and other resources...
- Response 1:** See Response 10 to the letter from the Narrows Conservation Coalition for a general discussion of subsistence.
The 1993 FSEIS (4-33) makes the determination that this project does not present "a significant restriction of subsistence uses of black bear, furbearers, marine mammals, waterfowl, salmon, other finfish, and other plants."
-
- Comment 2:** If the Forest Service is really serious about their claim of cutting on a 100 year rotation, inadequate though it is to protect all forest resources, they should at least consider all major impacts of the past 100 years.
- Response 2:** Analysis within the 1993 FSEIS Chapter 4 Wildlife section and the 1995 SEIS Chapter 4, Subsistence section, addresses cumulative effects as well as the direct and indirect effects of the proposed project on the recognized rural communities utilizing the study area for subsistence purposes. The analysis specifically dealt with the projected past, present, and reasonably foreseeable future effects of the project on deer. Past harvest was included in the habitat capability analysis. Please refer to Chapter 4 Wildlife for the discussion.
The 1995 FSEIS Subsistence analysis does conclude that the proposed project may have a significant restriction of deer in the project area regardless of which alternative is selected.
-
- Comment 3:** ...Alternatives 1 and 4A are claimed in the FSEIS (Table 4-22) to produce no restriction in abundance and distribution of deer. Yet the FSEIS claims there will be a restriction in abundance and distribution in alternative 3 which results in less impacts to deer habitat capability than alternative 4A.
- Response 3:** The ROD you mention is no longer valid. Please see the 1995 FSEIS, Chapter 4, Subsistence section for more clarification of the subsistence findings. The reason different Alternatives have different findings for the abundance/distribution of deer is that the Alternatives enter different WAAS which have different hunter demand estimates. Alternatives 1 and 4 do not harvest within WAA 5136. Please see Response #2. Also please see Response 10f to the letter from the Narrows Conservation Coalition, and the 1993 FSEIS, Chapter 4, Wildlife section, and Maps 2-4 and 3-7.
-
- Comment 4:** To adequately address impacts to subsistence, all of the area logged and roaded on the east side of Portage Bay should have been included in the study done
- Response 4:** The 1993 FSEIS analysis included all of WAA-5136. The wildlife analysis area includes the western limits of Portage Bay, and extends east and north to Frederick Sound. Our projections (4-25) "estimated demand [for deer] currently exceeds supply for WAA-5136."
-

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Comment 5: I have serious concerns whether my subsistence comments submitted for the FSEIS, or those of others, were even considered prior to the Record of Decision.

Response 5: Please see Response 10i to the letter from the Narrows Conservation Coalition.

Comment 6: Since entry into some of the area required greater effort, the deer herds in these areas were impacted less providing a reserve population for hunters to draw upon. The proposed roading will eliminate this reserve by providing access directly to these areas.

Response 6: The 1993 FSEIS (4-25) states that historical subsistence use of the area has not been affected by land use activities and is not expected to be affected by any of the action alternatives. This conclusion is based on the fact that traditional means of access would remain the same.

As stated in the 1993 FSEIS, the developed road system allows seasonal access to much of northern Kupreanof Island. These existing and proposed roads will increase access to areas traditionally used for deer hunting. The 1993 FSEIS determination for possible effects to access to deer resulted in a finding of no significant possibility of a significant restriction.

In evaluating the effects of the proposed project, one should reference the Alaska Land Use Council's recommended guidelines for compliance with ANILCA Section 810. The Council recommends an evaluation address whether or not a reduction in subsistence uses is due to limitations on the access to harvestable resources, such as physical or legal barriers. Again, the finding for the project was not a significant restriction to subsistence access to the study area.

Comment 7: ...The existing and proposed road system will increase access to areas traditionally used for subsistence, however it claimed that this increased access will not be significant. The claim was also made that traditional means of access will remain the same under any of the action alternatives. I disagree...

Response 7: Please see Response 6.

Comment 8: No measures to mitigate competition were proposed for the sale despite requests by numerous individuals and organizations in subsistence testimony for this sale.

Response 8: ANILCA mandates evaluating the effects of competition between non-rural and rural subsistence users and uses. ANILCA does not differentiate among the various rural communities until it is "necessary to restrict the taking of populations of fish and wildlife on lands for subsistence uses...."

The 1995 Chapter 4 Subsistence section makes reference to competition from personnel who may reside at the Portage Bay logging camp was mentioned. It should be pointed out that some, possibly all, might be rural Alaska residents, and eligible for traditional and customary subsistence uses of resources from the proposed project area.

Although the analysis has indicated that there could be increased competition for fish and game in the study area due to increased access, we do not feel that the mitigation measures you requested are necessary at this time. However, if

overharvest was to occur, the following are ways to mitigate the problem: National Forest fish and wildlife resources can be managed by the Forest Service to assure the continued viability of a fish or wildlife populations if such an action is needed. In addition, the Alaska Department of Fish and Game also has emergency regulatory authority to manage any stressed populations.

Comment 9: I believe the presence of logging and agency personnel who hunt and fish in the [Portage Bay] area significantly affects my subsistence use [of waterfowl] there.

Response 9: See Response 8. Also, the Forest Service can make land use decisions which restrict subsistence uses of rural residents consistent with the procedures and requirements set forth in Section 810 of ANILCA. The analysis does not support your conclusion that subsistence use of waterfowl will be significantly affected.

Comment 10: ..."No increase from non-rural users is anticipated because subsistence use in the area has been very low."... "we believe that the study area has been an important deer harvest area for most of this 65 year period."

Response 10: The 1993 FSEIS (3-22) states that historically important use areas for deer hunting include Portage Bay, coastal areas to the west, and areas accessible by foot three to six miles into the island's interior. The area experienced very low use at least since 1975 due to a closure to sport harvest of deer beginning in 1975. Access and competition from non-rural residents is not expected to change due to harvest limits and distance from urban communities.

Comment 11: The facts, according to the Division of Subsistence, lead to the conclusion that the study area has been an important subsistence harvest area for deer through most of the 20th century.

Response 11: See Response 10.

Comment 12: ...The importance of this area for subsistence hunters will become more important over time....The FSEIS and the DSSEIS are also arbitrary and capricious because the Forest Service did not consider all of the above relevant information or include it in their analysis.

Response 12: The Forest Service did consider the importance of the Bohemia area for subsistence and did consider habitat capability along with demand projections from ADF&G. Please see 1993 FSEIS Chapter 4 Wildlife and 1995 FSEIS Chapter 4 Subsistence. It is Forest Service policy to provide rural residents the opportunity to continue a subsistence way of life consistent with sound multiple use, sustained yield management of the National Forests.

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Subsistence is but one of the many uses of fish and wildlife habitat. Sport and commercial fishing, sport hunting, and wildlife viewing are other uses along with subsistence opportunities that are accommodated in all the alternatives.

The Forest Service considered the information and opinions you have presented but disagrees with your assessment of the analysis.

Comment 13: There is no evidence that the older clearcuts at West and Flat Points and south of Dry Cove...were considered in "Other Past or Planned Activities in the Surrounding Area,"....The full cumulative impacts of logging and roading in the study area were not considered or disclosed....

Response 13: Table 3-18 in the 1993 FSEIS lists activities back to 1975. Activities prior to that were considered in the cumulative effects analysis.

The cumulative impacts of these units were disclosed within the 1993 FSEIS. The model outputs for the Management Indicator Species reflect all past harvest activities in the study area. Within Table 3-6 (1993 FEIS), the habitat capability numbers for deer within WAA 5136 reflect a reduction in habitat capability for 82 deer.

Comment 14: ...The impacts to deer habitat on a 100 year rotation can be considered permanent and the related restrictions to deer will also be permanent. The mitigation of impacts to deer by thinning second growth...would be worthless....

Response 14: Given current thinking, a stand which is harvested on a 100 year rotation will not regain the characteristics of an old-growth stand (i.e. providing snow cover and forage). There are possibilities to utilize precommercial and commercial thinning to provide the cover and forage requirements needed by deer, thus increasing the habitat capability of harvested stands. Precommercial thinning has been implemented extensively on the Petersburg Ranger District. Options for commercial thinning are being explored on the Tongass N.F. Precommercial thinning (approximately 25 years after harvest) should not be considered worthless. Precommercial thinning prevents the canopy from closing in, preventing light from reaching forbs and shrubs. By precommercial thinning stands, canopy closure is prevented for approximately 10 years, thus providing forage for deer. You are correct that the precommercially thinned stands would be of a lesser value to deer during heavy snowfall. Heavy snowfall would limit the access of deer to forbs and shrubs.

Comment 15: I believe the full impacts of roading the area have not been considered.... Roading will affect deer populations detrimentally in several ways: Further fragmentation of deer habitat will occur in roaded areas. Since snow can build-up on the roads to a depth impassable to deer it can have the effect of locking them into inland areas to starve.

- Response 15:** See Response 10g to the letter from the Narrows Conservation Coalition.
Even with considerable amounts of snow, deer are able to cross roads to adjacent areas of old-growth where the snow depths are less. Large openings, such as muskegs, can hinder deer movements during deep snow conditions. Even during deep snow conditions, though, a hard crust can build up on the top of the snow; thus deer can move easily to other areas.
-
- Comment 16:** ...The 1989 Wildlife Resource Report for the Bohemia analysis identified additional wildlife inventory needs for the Bohemia sale.... If this study was completed I see no evidence that it has been considered in the planning of this sale.
- Response 16:** In 1989, the deer model was just starting to be utilized on the Tongass. The deer model was used to estimate the value of habitat and estimate the effects of various alternatives on deer within the study area. Deer population transects have been conducted by ADF&G and USFS biologists in 1993 and 1995 within Portage Bay. A mean of 0.43 pellet groups per plot was found in 1993. A mean of 0.57 pellet groups per plot was found in 1995. This data supports our statement in the 1993 FSEIS, Chapter 3, Page 14, "Although deer numbers appear to be increasing slightly, they are still far below the high levels of the sixties and are not near modeled habitat capability."
-
- Comment 17:** While it is difficult for deer to traverse the roads in winter, the wolves use the roads as major travel corridors.... With the fragmentation effect of roads and clearcuts the deer will be effectively trapped in the narrow leave strips between units by snow accumulations and are easy prey for wolves.
- Response 17:** The "cafeteria" effect is a theory with little supporting information. Some biologists support the theory others do not. It is not certain whether there would be any change in the success of the wolf in capturing deer. You specify that deer will be trapped in the leave strips between units. Please refer to Map 2-1 (1993 FSEIS) which displays the harvest units and the old-growth forest. As displayed on the map most units are on the edge of contiguous old-growth blocks. The leave strips are part of the contiguous block, thus providing contiguous escape habitat.
-
- Comment 18:** My personal observation of wolves in the Portage Bay area are that the heaviest use by wolves is at the head of the bay, or "isthmus" where numerous trails come together. The second most heavily used area is the west side of the bay back to Bohemia Mountain. The area least used by wolves is the east side of Portage Bay. If this has not already been changed by the roads there, it will be if a road is built across the isthmus.
- Response 18:** Within the 1995 DSEIS, Chapter 4, Pages 4-6, the effects to the wolf are displayed. Table 4-5 displays the density of road and accessible coast within WAAs 5135, 5136, and 5137 by alternative. These densities are far below the 1.0 mile per square mile threshold. As discussed in Response 21c to the letter from the Narrows Conservation Coalition, the roading of the isthmus will not prevent animal movements between east and west Kupreanof Island. The roads may cause changes in the wolves' movements, but are not likely to be detrimental.
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- Comment 19:** Since there is a relatively large population of wolves in the study area I think it is important to address the potential impacts on them before any action is taken.
- Response 19:** The effects to the wolf are displayed within the 1995 DSEIS, Chapter 4.
-
- Comment 20:** Also included in the 1989 Wildlife Resource Report is a mention of the importance of beaver areas to other wildlife....It is odd that beavers weren't even mentioned under 'Other Species of Interest' in this section, nor have I seen any evidence that the "management prescriptions" needed were ever developed.
- Response 20:** With the implementation of TTRA stream buffers, impacts to beaver areas have been minimized. As specified in the 1993 FSEIS, Chapter 2, Page 5, a swamp area was avoided due to a variety of concerns. Portions of the 1989 Wildlife Resource Report were considered when this sale was developed. As discussed above, actions (e.g. implementation of TTRA buffers) have occurred which change recommendations.
-
- Comment 21:** By failing to give equal consideration to all renewable forest resources, the FSEIS and the DSSEIS violate TTRA.
- Response 21:** The Forest Plan was amended in response to TTRA, and the ongoing revision of the Forest Plan will also be responsive to the direction in TTRA. The direction in TTRA to give equal consideration to all renewable resources must be addressed across the entire Tongass National Forest. Individual projects that implement the Forest Plan will consider all resources, but in most cases emphasize particular resources according to land use designations.
-
- Comment 22:** Of great concern is the overall reduction in visual quality of the area. Many of the Unit Descriptions express visual concerns....from Unit Card 511..."The unit will be highly visible from Portage Bay due to it's position on the slope. Cumulative impacts may be less than acceptable. Minimize visual impacts."
- Response 22:** A key element of the quotation was omitted in the comment. As written in the 1993 FSEIS, it reads, "The unit will be highly visible from Portage Bay due to its position on the slope. Cumulative impacts of the units may be less than acceptable. Minimize visual impacts."(emphasis added) The cumulative impacts being referred to are for Units 510, 511, and 512. The Implementation Direction/Visuals section from Unit Card 511 describes the mitigation measures for cumulative effects, "Unit 512 was reduced in size to lessen the cumulative impacts of the three harvest units in the area. This unit will meet the criteria for 'Partial Retention.' It is within the TLMP recommended range of 'Partial Retention' to 'Maximum Modification'." Unit 512 was reduced in size by 65 percent to 22 acres to lessen the cumulative visual impact of Units 510, 511, and 512. Please see Appendix A, 1993 FSEIS.
-
- Comment 22a:** ...the defunct ROD (at 6) claimed that only four percent of the seen area in the Bohemia Mountain VCU would be modified by proposed harvest units. However the cumulative impacts are much greater since, for instance, when viewed from Duncan Canal the whole backside of Bohemia Mountain will be greatly impacted.

Response 22a: The backside of Bohemia Mountain was inventoried to be of greatest visibility as seen from Portage Bay. The units were designed from viewing positions from Portage Bay for this reason. We feel the backside of Bohemia Mountain will not be "greatly impacted" as potentially viewed from Duncan Canal. Please see Response 22h to the letter from the Narrows Conservation Coalition.

Comment 23: My family and I are concerned with potential impacts to wildlife viewing opportunities from this sale. For example, the unit description for unit #521...indicates eagle habitat will be impacted. It is unclear exactly what this means.

Response 23: See Response 18c to the letter from the Narrows Conservation Coalition.

Comment 24: The Forest Service ignores the fact that the long term effects on salmon streams around the Bohemia Mountain have the potential of destroying a greater value in salmon than is harvested in timber.

Response 24: See Response 17 to the letter from the Narrows Conservation Coalition.

Comment 25: The potential for landslides caused by the roading and clearcutting activities proposed for the south side of Bohemia Mountain poses a serious risk to the salmon runs in Duncan Salt Chuck Creek by introducing silt into tributaries of the creek.

Response 25: The south side of Bohemia Mountain in upper Duncan Salt Chuck Creek does contain several V-notches deeply incised into "blue clay" material. This concern was investigated in the field early in the planning process. As a result, roads are not being planned to cross these hazardous areas nor is any logging proposed within or near the gorge in upper Duncan Salt Chuck Creek. The units that are planned (units 508 and 511) are higher on the slope away from the area of concern.

Comment 26: ...Map 3-3 depicts only one small patch of high hazard soils on the southeast side of lower Bohemia Mountain. The area described above is shown as only moderate soil hazard on the map. This contradiction indicates the map is not accurate.

Response 26: The area in question is correctly identified as moderate soil hazard based on the order 3 soil survey. Small areas of more hazardous conditions within this area have been identified during field investigations but are not displayed on the broad soil hazard map (1993 FEIS map 3-3). The scale of this map doesn't accommodate displaying such small areas. See Response 19 to the letter from the Narrows Conservation Coalition for soil hazard definition. Also see 1993 FEIS page 4-8 for a description of the soil concerns in upper Duncan Salt Chuck Creek.

Comment 27: Tables 4-4 and 4-5 indicate there is no timber harvest or roading proposed for high hazard soils. Since these tables are based on the soils map, it is highly probable that they too are in error.

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Response 27:

Tables 4-4 and 4-5 are derived from data from the soil map. The soil map is accurate within conventional mapping standards for order 3 soil surveys. Areas of questionable soil hazards involving roads and harvest units have been verified in the field and appropriate mitigative measures applied as necessary to minimize risk (refer to unit and road cards, Appendix A and B, 1993 FSEIS).

The area between the v-notches in Unit 505 is designed to be splitlined.

It has been field verified there is no v-notch within Unit 508. There is a Class III stream designated for splitlining in Unit 508.

Comment 28:

The inaccuracies of Map 3-3 also raise serious questions about the potential for similar problems on the highly productive creeks #6 and #7 on the north and northeast side of Bohemia Mountain.

Response 28:

See Response 27.

Comment 29:

Since winds are predominately from the southeast and the low lying elevation and topography offers little protection to winds, I believe the 100 foot buffer along Portage Creek and tributaries poses a high risk of blowdown....Due to the potential problems with blowdown at the head of Portage Bay I don't believe the planned buffers are adequate to protect the salmon streams there.

Response 29:

Windthrow is an important ecological process in the Bohemia area as well as all of southeast Alaska. It is the dominant process of forest renewal as well as input of large woody debris in streams. Analysis of past blowdown in the Bohemia area indicates storm winds from the southerly direction in some areas and from northerly direction in other areas. Harvest unit boundaries have been designed accordingly.

While some blowdown of individual trees is expected within the stream buffers, we anticipate these buffers will continue to function to protect water quality and fish habitat.

Comment 30:

...The PACFISH strategy (or it's equivalent) should be applied to units at the head of Portage Bay as well as other watersheds in the project area.

Response 30:

Your comment mentions both PACFISH and Anadromous Fish Habitat Assessment Report (AFHA); only AFHA applies to the Forest Service in Alaska. The recommendations contained in the AFHA Report have been examined in relation to this project. Most of the recommendations relate to long term efforts and will be addressed in the Revision of the Forest Plan. Others can be addressed without waiting for the Forest Plan Revision, but are still beyond the scope of this project. Two of the recommendations do relate directly to this project: protection of ephemeral streams and monitoring. Both of these items already receive more emphasis in the design of this project than was usually done prior to TTRA. (Most of the timber harvest examined to provide the basis for the AFHA recommendations was from projects designed prior to TTRA.)

Comment 31: In the FSEIS and the DSSEIS no mention is made of the coho run in Portage Creek.

Response 31: There is a small run of coho salmon in Portage Creek, but because of a barrier located close to the head of the creek there is very limited habitat for coho salmon, making this creek a very low producer of coho. There are no ADF&G escapement counts for coho salmon in this creek. During the summer of 1995, this barrier is being ladderered to open up habitat in the upper watershed for salmon, thus enhancing future salmon runs, including coho. The high salmon production in Portage Creek comes from the pink and chum salmon in this creek, and escapement data available through ADF&G is enclosed in the 1993 FSEIS.

The Tongass Timber Reform Act requires a minimum 100 foot uncut buffer on all Class I streams and Class II streams that flow directly into Class I streams. Any anadromous fish in a stream makes the classification of stream Class I under the Aquatic Habitat Management Unit Handbook. By following the guidelines of AHMU and the TTRA requirements protection for chum and pink adequately protect any coho in the system, and areas that have coho habitat that may not contain chum and pink are also protected through these measures. Timing restrictions for the bridge crossing on Portage Creek also took into the consideration that there is a small run of coho in the creek along with the pink and chum salmon and timing restrictions were prescribed accordingly to protect these species.

Comment 32: During the TLMP revision process, the Forest Service concluded that Duncan Salt Chuck Creek was eligible as a "wild" river for all twelve miles of it's length.... According to the unit cards in the FSEIS units in the watershed of DSCC will have a VQO of Modification to Maximum Modification.

Response 32: See Responses 22c, 22d, 22e, and 22f to the letter from the Narrows Conservation Coalition. Also see Unit Card 510 in 1995 FSEIS.

Comment 33: I fail to understand why the entire drainage was not included in the Petersburg Creek/Duncan Salt-Chuck Wilderness....

Response 33: The wilderness boundaries were established by Congress. In 1990, TTRA reviewed the status of wilderness on the Tongass without any addition to this wilderness. Wilderness designation is outside the scope of this project.

Comment 33a: A management proposal of primary importance to my family and I is the possible inclusion of Duncan Salt Chuck Creek, into the National Wild and Scenic Rivers System. The FSEIS and the DSSEIS, however, fail to take the required "hard look" at the impacts from this project on the river. The key to interim management is maintenance of the status quo until final decision has been made concerning the river's future.

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Response 33a:

Impacts from the action alternatives to the Duncan Salt Chuck Creek candidate Wild and Scenic River were carefully considered throughout the analysis for this project. The key to interim management of a candidate river is to maintain its highest level of eligibility to the National Wild and Scenic River System. In the case of Duncan Salt Chuck Creek, this means maintaining the river's attributes that make it eligible as a "wild" designation.

The action alternatives for the project maintain the eligibility of Duncan Salt Chuck Creek to be included as a "wild" river under the National System in several ways. First, no management activities will occur within the river or the river corridor which extends to one quarter mile on either side of the river. Also, harvest units have been located and designed so that they are either not visible from the river corridor, or for the few that are visible, they meet a Visual Quality Objective of partial retention.

The "outstandingly remarkable values" of Duncan Salt Chuck Creek are listed as recreation, scenery, and fish and wildlife (waterfowl and black bear). None of the project activities are anticipated to effect waterfowl habitat and although some activities do occur within black bear habitat, the impact is so slight that no measurable change in habitat capacity is projected. Fish values are protected by excluding management activities within the half mile river corridor. For creeks outside the corridor that may flow into the eligible portion of Duncan Salt Chuck Creek, protection of fish values is provided through stream buffers and other Best Management Practices designed to protect water quality. Most of the recreational use and values of Duncan Salt Chuck Creek is concentrated in the lower reaches of the stream outside of the project area. Some use does occur on the Portage Mountain Loop Trail which will be effected by this project, but not enough to change the level of eligibility of Duncan Salt Chuck Creek.

Please refer to the 1993 FSEIS, Chapters 3 and 4, Wild and Scenic Rivers sections, and Chapter 4, Visual Resource section.

Comment 34:

Due to the low value of the timber on Bohemia Mountain and the high cost of accessing that timber, including the many miles of unnecessary road proposed, the preferred alternative is in direct conflict with national policy.

Response 34:

The mid-market economic assessment does suggest that this is a deficit timber sale. However, the process specified for mid-market analysis requires using average timber values that are now out of date and quite low when compared to recent selling values. Our expectation, based on recent demand and selling values, is that this sale will not be deficit. See Chapter 4 of the 1995 FSEIS, Timber section.

Comment 35:

Since the proposed road across the isthmus between is not, and never will be, economical in the context of a timber sale, it should never have been seriously considered as a viable option in light of the actual and potential negative impacts to wildlife and present user groups.

Response 35:

See Responses 2 , 3, and 21c to the letter from the Narrows Conservation Coalition.

Comment 36:

...I believe that a large portion of the timber proposed for harvest there would also be useless to the mills in Southeast Alaska.

Response 36: The Haines sawmill referenced in your comment has been out of business for many years. Forest Service timber sale contract utilization standards require wood down to a six-inch top to be removed from the sale. This applies to all timber sales. The Forest Service sells timber stumpage under the contract but does not dictate the final products the timber will be used for beyond requirements for primary manufacture. The timber purchaser makes a business decision as to what products the timber will be made into. Successful mills in southeast Alaska have machinery adapted to the Forest Service utilization standards. The average commercial tree diameter on the Bohemia area is estimated to be 17 inches.

Comment 37: The additional unnecessary road miles proposed for the preferred alternative (Road 6031) will pose problems not yet addressed....Little or no money is available for improvements and maintenance of Forest Service roads once they are built.

Response 37: Approximately 23 miles of Forest Development Roads are proposed to be kept open at a Maintenance Level 2 level. This is the minimum maintenance level required to keep the roads open for use by high clearance vehicles. Traffic is normally minor. An annual budget of approximately \$2,000 will be needed to maintain these roads at this level.

Comment 38: ...It is obvious that the timber volume available west of Portage Bay is unlikely to support future sales....It will be cheaper to do the amount of administration required, in that portion of the study area, by helicopter.

Response 38: Please see Response 2 to the letter from the Narrows Conservation Coalition. We do expect to harvest more timber from the area west of Portage Bay in the future and will need a road system for future sales. These sales, with continuing Forest Service administration in the area, make the road system the most economical option.

Comment 39: There are numerous references to Kake/Portage/Petersburg Road...indicating that road 6031 "may contribute to a Kake-Petersburg connection"....The Forest Service violates NEPA and ANILCA since the cumulative impacts resulting from construction of the entire length of road must include more than their cursory treatment.

Response 39: Please see Response 1 to the letter from the Narrows Conservation Coalition.

Comment 40: An interesting Forest Service practice is illustrated by the positive assertion in the defunct ROD...that the 5-Mile sale "would add an additional ten miles to this road system"....This odious practice of decision making prior to the environmental analysis violates NEPA.

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- Response 40:** Developing a proposed action before an environmental analysis is definitely not a violation of NEPA. The NEPA regulations specify that the identification of a proposed action is the first step in the analysis process. NEPA regulations do require that alternatives to that proposed action be evaluated during the analysis process. That has been done in this analysis and will be done in all future environmental analyses.
-
- Comment 41:** The Forest Service's efforts to designate HCAs as a way of meeting the retention requirement for this project plan is contrary to current forest-wide direction as contained in the 1985-86 TLMP Amendment....The FSEIS and the DSSEIS completely ignore the retention provisions of the 1979 TLMP.
- Response 41:** Please see Response 18c to the letter from the Narrows Conservation Coalition.
-
- Comment 42:** This study should be completely redone to comply with the laws of the United States and to show consideration for present and future inhabitants of the area. In addition, an Area Analysis must be prepared that at a minimum analyzes the environmental impacts from all proposed projects in and adjacent to the Bohemia Mountain Study Area.
- Response 42:** As indicated in the above responses, this FSEIS does comply with all legal requirements. All past, present and reasonably foreseeable projects in and adjacent to this proposal have been considered in the cumulative effects analysis. This does include the long-term effects on deer habitat. Also please see Response 7 to the letter from the Narrows Conservation Coalition.
-

March 15, 1995

Abigail Kimbell, Forest Supervisor
 U.S. Forest Service
 Stikine Area
 Box 309
 Petersburg, AK 99833

Received

MAR 20 1995

Tongass N.F.

Dear Ms Kimbell:

Thank you for sending the Bohemia Mountain
Timber Sale Draft Supplement to the SEIS.

I favor Alternative 1, followed by Alt. 3 as
 a second choice and Alt. 4A as third choice.

Kupreanof Island has already been hit hard, both
 by the Forest Service and Chukchee Tribal Corp. There
 have been many indications that the Forest Service
 has overestimated the amount of harvestable timber
 on the Tongass. There are already concerns about
 sustainability of viable wildlife populations, given
 the decreasing habitat as canopies close in in
 former clearcut areas. Roads also detrimental
 to wildlife. Moreover it makes me ill to
 know that places I remember as beautiful and
 untouched, including Portage Bay and the coast
 toward Ft. McCartney are being logged. The people
 of Alaska certainly will not benefit.

May 20, 1995

Box 94

DL 902-1

Appendix C

Letter from Judy Brakel

- Comment 1:** There have been many indications that the Forest Service has overestimated the amount of harvestable timber on the Tongass.
- Response 1:** Accurate estimations of timber inventories are important to the Forest Service. The 1991 Irland Group Report concluded that there were discrepancies between inventories and what was actually being harvested. The Forest Service is continually updating its inventories as better information becomes available. The allowable sale quantity or ASQ is made at the Forest Plan Level and is outside of the scope of analysis for this or any other single project. The Forest Plan Revision Team is currently working on the issues of accurate inventories as they relate to the ASQ. Adjustments to the ASQ will be made in the Revised Tongass Land Management Plan.
-
- Comment 2:** There are already concerns about sustainability of viable wildlife populations, given the decreasing habitat as canopies close in former clearcut areas.
- Response 2:** Within the 1993 FSEIS (Chapter 4, Page 19-20), viability in the study area is addressed. Currently the Tongass Land Management Planning Team is working on the issue of species viability, but no viability strategy has been adopted within Region 10.
-
- Comment 3:** Roads also detrimental to wildlife.
- Response 3:** See Response 10h to the letter from the Narrows Conservation Coalition.
-

MEMORANDUM

APR 10 1995

Pay 4.10
Appendix C
State of Alaska
Department of Environmental Conservation
Response

TO: Rex Blazer
OMB/DGC

DATE: March 31, 1995

FILE NO: AK 9503-05JJ

THRU: Doug Redburn
Chief, WQM

TELEPHONE NO: 465-5365

FROM: Jim Ferguson
Program Coordinator, Forest Practices
Southeast Regional Office

SUBJECT: Draft Supplement to the Final
Supplemental EIS for the
Bohemia Mountain Timber Sale

The Department of Environmental Conservation has reviewed the Draft Supplement to the Final Supplemental EIS for the Bohemia Mountain Timber Sale. This sale, part of the independent timber sale program, proposes to harvest 34.3 MMBF of timber on 1,381 acres. A total of 27.6 miles of new system road and 5.6 miles of temporary road are proposed. The sale proposes to use existing LTF sites at Hamilton Bay and Portage Bay.

Our comments are divided into two sections: 1) ACMP consistency and 2) consistency with Section 319 of the Clean Water Act. Note that several of our comments are identical to comments on the Final Supplemental EIS. Since no apparent changes were made in response to our previous comments, those earlier comments still apply.

ACMP CONSISTENCY

Of the action alternatives, Alternative 3 appears to have the lowest potential for water quality impacts, due to the amount of timber harvest and road building proposed and the nature of the streams and watersheds affected. We view it as the environmentally preferred alternative. However, ADEC has no specific reasons to find the USFS preferred alternative, 5B, inconsistent with the ACMP. We have comments on two specific units and one road:

1. Unit 529: ADEC expressed concern for the proposed prescriptions for this unit in its comments on the SDEIS. We remain concerned that partial suspension is prescribed for the fish stream within this unit. Such a stream may not qualify for "A" level protection (under the timber sale contract clauses). However, since it is a fish stream, at least level "B" protection is warranted: full suspension or split yarding, and stream cleaning within 48 hours. } 1
2. Unit 541: The unit map indicates that there are no streams within the unit. However, a class III stream is shown to end at the unit boundary. We need to know if this stream continues as a class III stream within the unit and, if so, what specific water quality protection measures were prescribed. We would also like to know if there are other class III streams within the unit. } 2

boundaries and, if so, what water quality protection measures were prescribed. For example, what provisions of BMP 13.16 were applied, and do the streams qualify for contract clause Level "B" or "C" protection?

3. Re-routing of the 6031 Road: ADEC notes that there is a section of this road that crosses slopes in excess of 60 percent, and that adverse grades are likely to occur. We are concerned with the stability and potential erosion of this road. It appears that a high design standard is required to prevent problems from occurring. Since no maps were provided showing the proximity of this road to streams, we cannot evaluate the water quality degradation potential. In order to evaluate the water quality protection measures and BMPs prescribed (or needed) for this section of road, we need to see the engineering plan.

We would also like to include segments of this road on future road condition/stream crossing structure surveys, as well as roads 6032.1, 45601, and 45603, all of which are proposed as RMO 2. The other roads are all RMO 1--we assume that these roads will be closed in a manner consistent with 11 AAC 95.320, and one which minimizes the risk of water quality degradation.

ACMP Advisory:

At the 1994 Plan of work meeting between the USFS and ADEC, it was agreed that routine water quality monitoring observations of BMP effectiveness would be made for timber harvest and road construction operations, and that these observations would be summarized and reported to ADEC. This agreement was made, in part, to meet the requirements of the Alaska Forest Resources and Practices Regulations (11 AAC 95.825), and the MOA between the USFS and ADEC. To date, no routine monitoring summaries have been received by ADEC.

The conduct of such monitoring constitutes an ACMP consistency issue. However, recognizing that this is a recent agreement, ADEC is informing Forest Service planners and managers of this requirement and agreement here as an ACMP advisory. We expect that this and future projects will conduct routine BMP effectiveness monitoring, and report the results to ADEC. On the basis of the response to this advisory (for this and other projects), ADEC will evaluate the need to make routine monitoring a formal ACMP consistency issue.

SECTION 319 CONSISTENCY

ADEC appreciates the fact that some of the water quality concerns raised during the review of the DSEIS were addressed in the Final, despite the lateness of the State response. However, the previous comments offered by ADEC with respect to the monitoring proposals are still valid and remain unaddressed. The monitoring proposals are too broadly and generally written. The *intent* of the proposed monitoring plan is consistent with the Alaska Nonpoint Source Pollution Control Strategy and the USFS/ADEC Memorandum of Agreement. However, the plan itself cannot be implemented as written. A more detailed plan is required.

ADEC is particularly concerned about the proposals for effectiveness monitoring under "Water Quality and Fisheries" and under "Soils." While the general objectives of the proposals are good, the proposals themselves currently lack the specificity that would allow ADEC and the Forest Service to conduct a meaningful review. As written, these proposals suggest that a fairly extensive monitoring effort is proposed by the District and/or Area. As indicators of the content of specific proposed monitoring projects, they are essentially useless.

Further, the monitoring plan was not modified to be consistent with the Stikine Area's Effectiveness Monitoring Strategy (May 2, 1994).

The proposals need to be defined in greater detail with respect to specific objectives, techniques, sampling frequency, and parameters. The objectives should be consistent with the Stikine Area effectiveness monitoring strategy. As a general guide, ADEC suggests that the planning team review the monitoring proposals for the North and East Kuiu FEIS, ADEC's comments on the proposals, and the Forest Service response to ADEC's comments. The buffer monitoring proposal in the Campbell Timber Sale FEIS is another good example. As a guide for developing the details of each monitoring proposal, ADEC suggests that the planning team use the "Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska," EPA Region 10, May 1991, (EPA/910/9-91-001).

In summary, in order to determine consistency with the ACMP and Section 319 of the Clean Water Act, ADEC requests the following information:

1. A discussion of the stream prescriptions for Units 529 and 541 and, if possible, a map showing the location of the streams within these units.
2. Plans for the 6031 road. At a minimum, plans for the section of the road that has been re-routed, including the sections that cross slopes in excess of 60 percent, and which have adverse grades.
3. The effectiveness monitoring plan, including some discussion on how the project plan relates to the Stikine Area effectiveness monitoring strategy. } 5

We appreciate the opportunity to comment.

cc: Mike Conway, ADEC	Abigail Kimbell, USFS
Len Verrelli, ADEC	Patricia Grantham, USFS ✓
Lana Shea, ADF&G	Wayne Elson, USEPA
Jack Gustafson, ADF&G	Susan Cantor, USEPA
Bruce Johnson, ADNR	

Letter from Alaska Department of Environmental Conservation

Comment 1: Unit 529: ADEC's expressed concern is that the partial suspension prescription for yarding does not offer the necessary protection for the fish stream in the north area of the unit.

Response 1: The portion of this unit north of the Class II stream will be helicopter logged to provide full suspension on the stream.

Comment 2: Unit 541: ADEC's concern is whether or not the Class I stream continues into the the Unit as a Class III.

Response 2: The Class I stream does not continue into the unit either as a Class II or a Class III. No known Class III streams exist in the unit. If any new streams are discovered during unit layout, appropriate stream protection measures will be applied.

Comment 3: Road 6031: ADEC is concerned about the slope stability and road surface erosion on that road segment described as having steep, adverse grade on sideslopes steeper than 60%. They are also concerned about the proximity of the road to streams and the potential water quality degradation. They would like the USFS to conduct future road condition/stream crossing structure surveys on roads: 6031, 6032.1, 45601, and 45603 (these roads are proposed to be kept open after harvest activities). They want assurance that the Maintenance Level 1 roads will be closed in a manner which minimizes the risk of water quality degradation.

Response 3: We have revised the Map 2-1 in the 1995 FSEIS displaying the re-routed section of road 6031. All class I, II and III streams are displayed. The map displays 100 foot contour intervals.

Final road location of this section was able to take advantage of small benches. The adverse road grade now does not exceed 10%. The steep sideslope sections are short and do not exceed a total of 300 feet in length. Soil and water specialists reviewed this section and recommended full-bench road construction techniques be applied on slopes greater than 60% and that BMPs 14.7, 14.9, and 14.12 be applied. Surface erosion and sedimentation to adjacent water-courses will be minimized by applying BMP 14.8.

Future road condition/stream crossing structure surveys are effectiveness monitoring. Road condition surveys are performed as needed to provide up-to-date knowledge of the road condition. Frequency and intensity of condition surveys vary with each road maintenance level and the risk involved.

Closed Forest Development Roads (FDR) in Maintenance Level 1 have a prescription that orders work needed to alleviate erosion or sedimentation on or from roadway or roadsides be performed and that work required to keep drainage facilities functional and prevent unacceptable environmental damage be performed.

C Appendix

Roads proposed to be closed (Maintenance Level 1) on the Bohemia Mountain Timber Sale area are prescribed to be grass seeded and fertilized. This is expected to accomplish several things: greatly reduce surface erosion, retard alder growth in the roadway, and provide some benefit to wildlife.

Open FDRs in Maintenance Level 2 require the same level of resource protection as Maintenance Level 1 roads.

Comment 4: Routine effectiveness monitoring.

Response 4: The Memorandum of Agreement (MOA) between the Forest Service and ADEC describes routine effectiveness monitoring as visual observation and documentation of water quality degradation resulting from resource management activities. There has only been one such observation on the Stikine Area since the MOA was signed and ADEC was informed in accordance with procedures outlined in the MOA. There were no observations of water quality degradation to report to ADEC in 1994.

Comment 5: Monitoring plan

Response 5: See the revised monitoring plan in Chapter 2 of the 1995 FSEIS.



TEL 907/225-2151
FAX 907/225-8260

April 7, 1995

[illegible]

Mr. Dave Helmick
USDA Forest Service
P.O. Box 309
Petersburg, AK 99833

Dear Dave:

Ketchikan Pulp Company would like to take this opportunity to comment on the Draft Supplement to the Bohemia Mountain Final Supplemental Environmental Impact Statement.

It seems every time another supplement is written on Bohemia Mountain, the timber harvest economics get worse instead of becoming more economically realistic.

Preferred Alternative	Spec. Rd. (Miles)	Temp. Rd. (Miles)	Volume (MMBF)	Recovery MMBF/Mile
FEIS Preferred Alt. 5	19.2	4.4	34	1.44
DSEIS Preferred Alt. 5B	24.1	5.6	38.2	1.29
DSSEIS Preferred Alt. 5B	27.6	5.6	34.3	1.03

In all the alternatives, the helicopter logging still exists. To make this an economically realistic sale for any potential operator, an alternative should be designed that enlarges harvest units, requires fewer miles of road construction per volume of timber, and reduces or eliminates helicopter logging altogether.

The Tongass Timber Reform Act (TTRA) requires that the Secretary of Agriculture "seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest...." Offering a seemingly high-volume timber sale while ignoring the economic realities of harvest operations is not a particularly

Mr. Dave Helmick
 April 7, 1995
 Page 2

2 cont. {

meaningful way to attempt to satisfy the TTRA requirement; this proposed sale would fall far short of realistically meeting the needs of the dependent timber industry.

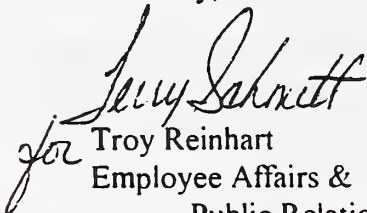
3 {

Maybe a more realistic way of looking at this sale would be to divide it into two sales by 1) hauling the volume from the west side of Portage Bay to the Little Hamilton Bay LTF and 2) hauling the volume east of Portage Bay to the Portage Bay LTF, thus eliminating miles of unnecessary road construction. This plan would also drop unit 541, which seems to be in contention, and would eliminate a road going through or around a LUD II area.

The Bohemia Mountain DSSEIS states that the "primary purpose and need for the Bohemia Mountain Timber Sale is to meet the goals of the Forest Plan by providing... timber for harvest and providing for long-term transportation needs for National Forest visitors and administration." The Bohemia DSSEIS states "current inventory data show that the project area could easily provide this much volume while meeting all existing standards and guidelines for timber harvest and road construction."

This DSSEIS lists the Alexander Archipelago Wolf as a candidate species. This has been unfounded by the recent decision not to list it under the Endangered Species Act. The animal sensitive species list contains 9 species with only the Queen Charlotte goshawk being sighted in the study area. With recent action in Congress regarding this species, the goshawk should not be a deterrent to this sale. Only one sensitive plant species has been found in this area and it grows in muskegs which are not a prime site for harvest operations. Neither of the other two candidate species have been found in this area. In light of these findings, harvest operations in this area do not appear to cause a threat to anything.

Sincerely,


 for Troy Reinhart
 Employee Affairs &
 Public Relations Manager

ATR:jl原因/ak

cc: O. J. Graham
 R. D Lewis

Letter from Ketchikan Pulp Company

Comment 1: To make this an economically realistic sale for any potential operator, an alternative should be designed that enlarges harvest units, requires fewer miles of road construction per volume of timber, and reduces or eliminates helicopter logging altogether.

Response 1: We believe sales from this project will be economically viable (please see Timber section, Chapter 4, 1995 FSEIS). Also see Response 7 to the letter from the Alaska Forest Association.

Comment 2: Offering a seemingly high-volume timber sale while ignoring the economic realities of harvest operations is not a particularly meaningful way to attempt to satisfy the TTRA requirement; this proposed sale would fall far short of realistically meeting the needs of the dependent timber industry.

Response 2: The Bohemia Mountain Timber Sale proposes to offer from 10.6 to 34.3 MMBF of timber between the action alternatives. This large quantity of timber will contribute to the goals of the Forest Plan as well as contributing to the annual market demand for timber mentioned in TTRA. These alternatives are also consistent with providing for multiple use and sustained yield of all renewable forest resources. While only Alternative 3 is expected to provide a positive return under middle market conditions, all the action alternatives are estimated to provide a positive return under the current strong timber markets. Please see Timber Sale Economics Chapter 4 in the 1995 FSEIS.

Comment 3: Maybe a more realistic way of looking at this sale would be to divide it into two sales....

Response 3: It has been suggested that the Bohemia Mountain Timber Sale be divided into two sales, by hauling the volume from the west side of Portage Bay to the Little Hamilton Island LTF and hauling the volume east of Portage Bay to the Portage Bay LTF. Alternative 6 displays precisely that opportunity. All the Bohemia Mountain timber is hauled back to Little Hamilton Island LTF and the east Portage Bay timber is hauled to the Portage Bay LTF. A review of the Economics, Table 2-4 in the 1995 DSEIS indicates a Mid-market Net Value of -\$86, slightly worse than the -\$84 indicated for the preferred alternative 5B.

Also see Response 2 to Narrows Conservation Coalition.

C Appendix

Comment 4:

The DSSEIS lists the Alexander Archipelago Wolf as a candidate species. This has been unfounded by the recent decision not to list it under the Endangered Species Act....With recent action in Congress regarding this species [Queen Charlotte goshawk], the goshawk should not be a deterrent to this sale. Only one sensitive plant species has been found in this area and it grows in muskegs....Neither of the other two candidate species have been found in this area....Harvest operations in this area do not appear to cause a threat to anything.

Response 4:

The 1993 DSEIS is correct. The recent decision by the USFWS to not list the Alexander Archipelago Wolf nonetheless kept the wolf as a Category 2 candidate species. Your assessments of the goshawk and sensitive plant species are correct.



United States Department of the Interior

OFFICE OF THE SECRETARY

Office of Environmental Policy and Compliance
1689 C Street, Room 119
Anchorage, Alaska 99501-5126

ER95/0174

April 25, 1995

Mr. Dave Helmick
Interdisciplinary Team Leader
U.S. Forest Service
P.O. Box 309
Petersburg, Alaska 99833

Dear Mr. Helmick:

In response to your request, we have reviewed the February 1995, Draft Supplement Environmental Impact Statement (EIS) to the 1993 Final Supplement EIS for the Bohemia Mountain Timber Sale and offer the following comments for your consideration.

GENERAL COMMENTS

In earlier Correspondence, the Fish and Wildlife Service (FWS) requested copies of any completed or continuing preliminary wildlife studies in preparation of the Bohemia Mountain Timber Sale. These documents were requested in order to complete a thorough review of the environmental analysis. Although the Forest Service (FS) previously indicated these related documents were to be provided, it is our understanding, wildlife study information has yet to be received. We have also not received a response to our previous Draft Supplemental Environmental Impact Statement review comments on preliminary studies. } 1
} 2

We are requesting written results of the FS preliminary 1993 and 1994 surveys for : 1) goshawks; 2) Vancouver Canada geese; 3) marbled murrelets - inland and offshore during breeding season; 4) spotted frogs; 5) waterfowl; and 6) anadromous fish use and stream surveys. We would also appreciate receiving a copy of the August 11, 1993, project memorandum from the Interdisciplinary Team Biologist and any other more recent correspondence dealing with Bohemia Mountain project area wildlife. Please send these documents to:

U.S. Fish and Wildlife Service
Southeast Alaska Ecological Services
Attention: Carol Hale
3000 Vintage Park Boulevard, Suite 201
Juneau, Alaska 99801

APR 30 1995

C Appendix

CONSISTENCY WITH MANAGEMENT CHANGES

- 3 { We believe the Final Supplement should include the management changes that will be included in the final Environmental Assessment (EA) for amending the Tongass Land Management Plan (TLMP) addressing viable wildlife populations and forest fragmentation concerns. Any large, medium, and small Habitat Conservation Areas and wildlife travel corridors, as defined in the Interagency Viable Population Committee's draft strategy, established in the EA should be avoided in all Bohemia Mountain project alternatives.
- 4 { Plans for this timber sale should reflect developing ecosystem management efforts, such as:
- (1) The TLMP revisions to maintain viable wildlife populations;
 - (2) establishment of management guidelines for the Queen Charlotte goshawk (Accipiter gentilis laingi) and Alexander Archipelago wolf (Canis lupis ligoni);
 - (3) additional fisheries habitat protection;
 - (4) cave and karst management; and
 - (5) the Memorandum of Understanding between the Service, FS, and the Alaska Department of Fish and Game and any subsequent conservation agreements that they may develop.

CATEGORY 2 PLANT SPECIES

- 5 { Two Category 2 plant species may occur in the project area, Calamagrostis crassiglumis and Carex lenticularis var. dolia. The Final Supplement should contain an analysis of the potential for these plants to occur in the project area.

If these comments need any clarification, please contact Carol Hale, Juneau Ecological Services Field Office, at (907) 586-7240. We appreciate the opportunity to review the Draft Supplemental EIS.

Sincerely,


Regional Environmental Officer - Alaska

Letter from U.S. Department of the Interior

- Comment 1:** ...The Fish and Wildlife Service (FWS) requested copies of any completed or continuing preliminary wildlife studies in preparation of the Bohemia Mountain Timber Sale....It is our understanding, wildlife study information has yet to be received.
- Response 1:** We will be forwarding these to you.
-
- Comment 2:** We have also not received a response to our previous Draft Supplemental Environmental Impact Statement review comments on preliminary studies.
- Response 2:** Please see the 1993 FSEIS, Appendix E, Page 7, and the November 4, 1993, letter from the Regional Forester to Walter Stieglitz, USFWS.
-
- Comment 3:** We believe the Final Supplement should include the management changes that will be included in the final Environmental Assessment (EA) for amending the Tongass Land Management Plan (TLMP) addressing viable wildlife populations and forest fragmentation concerns. Any...Habitat Conservation Areas and wildlife travel corridors...established in the EA should be avoided in all Bohemia Mountain project alternatives.
- Response 3:** The EA for amending TLMP is still pending. HCAs were displayed within the 1993 FSEIS.
-
- Comment 4:** Plans for this timber sale should reflect developing ecosystem management efforts....
- Response 4:** These issues are being addressed as part of the TLMP revision process. We've addressed all issues pertinent at the project level.
-
- Comment 5:** Two Category 2 plant species may occur in the project area....The Final Supplement should contain an analysis of the potential for these plants to occur in the project area.
- Response 5:** See page 3-7 of the 1995 DSEIS.
-

OFFICE OF THE GOVERNOR

OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF GOVERNMENTAL COORDINATION

SOUTHCENTRAL REGIONAL OFFICE
3601 "C" STREET, SUITE 370
ANCHORAGE, ALASKA 99503-5930
PH: (907) 561-6131/FAX: (907) 561-6134

CENTRAL OFFICE
P.O. BOX 110030
JUNEAU, ALASKA 99811-0030
PH: (907) 465-3562/FAX: (907) 465-3075

PIPELINE COORDINATOR'S OFFICE
411 WEST 4TH AVENUE, SUITE 2C
ANCHORAGE, ALASKA 99501-2343
PH: (907) 271-4336/FAX: (907) 272-0690

May 18, 1995

Dave Helmick
Stikine Area, Tongass National Forest
P.O. Box 309
Petersburg, Alaska 99833

Dear Mr. Helmick:

**SUBJECT: BOHEMIA MOUNTAIN TIMBER SALE 1995 DRAFT SUPPLEMENT,
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
STATE ID NO. AK9503-05JJ**

The Division of Governmental Coordination has completed coordinating the State of Alaska's review of the 1995 Draft Supplement Bohemia Mountain Timber Sale Supplemental Environmental Impact Statement (DEIS) and federal consistency determination prepared by the U.S. Forest Service (USFS) for the Bohemia Mountain Timber Sale per the National Environmental Policy Act (NEPA). As this review was conducted to satisfy the requirements of NEPA, the State comments may include a broad range of issues.

In addition, we offer preliminary comments on the federal consistency determination pursuant to the Coastal Zone Management Act (16 U.S.C. 1451 and 15 CFR 930, Subpart C), to ensure compliance with the Alaska Coastal Management Program (ACMP, 6 AAC 80) at the time of the forthcoming ACMP review. According to 15 CFR 930.41, the state is to issue a finding of agreement or disagreement with the federal agency's consistency determination. Under the ACMP, we offer a consolidated response on behalf of the state resource agencies (Alaska Departments of Environmental Conservation, Fish and Game, and Natural Resources). These preliminary comments are also submitted in the context of Alaska Statute (AS) Title 41, Forest Practices Act (FPA), the Fish and Game code (AS Title 16), Section 319 Nonpoint Source Strategy of the Clean Water Act, and the Alaska National Interest Lands Conservation Act (ANILCA).

Stikine Area	
May 25 1995	
Forest Supp	
P.L.O.	
A.O.	
Eng. Staff	
F & WL Staff	
Planning Staff	
HL Staff	
S & W Staff	
Timber Staff	
Pub. Dist.	
Wing. Dist.	

Handwritten notes:
 May 5.20
 5/25/95 cc [initials]
 5/26/95 - cc [initials]
 Jim - 5.2
 on page 110

PROJECT DESCRIPTION

The purpose of the Bohemia Mountain Timber Sale is to provide between 10 and 40 million board feet of timber for harvest and to provide for long-term transportation needs of National Forest visitors and administration. Out of five alternatives considered, the Proposed Action - Alternative 5B - was designed to harvest the greatest volume of timber. Alternative 5B will entail construction of 27.6 miles of new road to facilitate the harvest of approximately 34.3 million board feet of timber on 1,381 acres at a mid-market net value of -84.00/thousand board feet. Existing log transfer facilities (LTF's) at Portage Bay and Little Hamilton would be used, with their associated existing sortyards.

In December, 1993, the Narrows Conservation Coalition appealed the July 1993 Final Supplemental EIS and October 1993 Record of Decision for this timber sale. The Regional Forester found three points requiring further analysis: 1) Roading through LUD II lands is not justified, 2) the USFS added unit 541 following publication of the 1993 final supplemental draft, and 3) "sensitive" species listing and management objectives for the project area were inadequate. In addition, the Regional Forester found two additional issues ripe for further analysis: 1) An analysis of the function and value of wetlands, and 2) an analysis of impacts on the recently listed Alexander Archipelago Wolf. The scope of our preliminary ACMP consistency comments is limited to the above issues.

The State previously participated in the following reviews on this project: 1989 scoping (AK890411-05J); 1991 Draft EIS (AK910606-18J); 1991 Final EIS (AK911009-07); 1992 Draft Supplemental EIS (AK920609-12J); and 1993 Final Supplemental EIS (AK9311-05JJ) and we incorporate those comments by reference here.

NEPA COMMENTS

The Department of Environmental Conservation (DEC) continues to view Alternative 3 as having the lowest potential for water quality impacts and therefore the environmentally preferred alternative.

PRELIMINARY ACMP COMMENTS

- 1 { DEC will need to know if the class I stream which is shown to end at the boundary of unit 541 continues within the unit, whether there are any other class III streams within the unit, and what water quality measures are prescribed for them. This information is necessary for
- 3 { the agency to assess ACMP consistency. DEC urges you to employ split yarding or full suspension on unit 529 to protect the class II stream which bisects the unit.
- 2 { In order to adequately review this project for Compliance with the ACMP, DEC requires better maps of the proposed re-route of road 6031. The maps should clearly show the proximity of the road to streams and slope grades in order to evaluate the water quality protection measures and BMP's required. Please also see the state's comments concerning road condition/stream crossing surveys.

Dave Helmick

3

May 18, 1995


Routine water quality monitoring of BMP effectiveness for timber harvest and road construction operations are an ACMP issue. DEC is concerned that no routine monitoring summaries have been received, per the 1994 Plan of Work agreement between USFS and DEC. In addition, DEC is concerned that nonpoint source pollution control monitoring in the document is too general, cannot be implemented as written, and may be inconsistent with USFS' own Stikine Area 's Effectiveness Monitoring Strategy. Please see the attached DEC comments.

Advisory:

The Alaska Department of Fish and Game was unable to review this project due to reductions in the number of staff available to review projects in southeast Alaska and will defer additional comments until the final Supplement for this project.

Thank you for the opportunity to comment on this NEPA document.

Sincerely,



Rex Blazer
Project Review Coordinator

Enclosure

cc:

Jim Ferguson, DEC, Juneau
Lana Shea, DFG, Juneau
Elizaveta Shadura, DNR, Juneau
Jack Gustafson, DFG, Ketchikan
Jim McAllister, DNR, Juneau

Letter from Office of the Governor

Division of Governmental Coordination

- Comment 1:** DEC will need to know if the Class I stream which is shown to end at the boundary of *unit 541* continues within the unit, whether there are any other class III streams within the unit, and what water quality measures are prescribed for them.
- Response 1:** See Response 2 to the letter from the Alaska Department of Environmental Conservation.
-
- Comment 2:** DEC requires better maps of the proposed re-route of road 6031. The maps should clearly show the proximity of the road to streams and slope grades in order to evaluate the water quality protection measures and BMP's required.
- Response 2:** See Response 3 to the letter from the Alaska Department of Environmental Conservation.
-
- Comment 3:** DEC urges you to employ split yarding or full suspension on *unit 529* to protect the class II stream which biesects the unit.
- Response 3:** See Response 1 to the letter from Alaska Department of Environmental Conservation.
-

Alaska Forest Association, Inc.



111 STEDMAN SUITE 200
KETCHIKAN, ALASKA 99901-6598
Phone 907-225-6114
FAX 907-225-6920

June 12, 1995

Ms. Abigail Kimbell
Forest Supervisor
Stikine Area, Tongass National Forest
P.O. Box 309
Petersburg, Alaska 99833

Re: Bohemia Mountain Final Supplemental Environmental Impact Statement

Dear Ms. Kimbell;

The Alaska Forest Association appreciates the opportunity to comment on the Draft Supplement:

- A. We request expedited processing of the remaining EIS tasks leading to sale and harvest of timber from this sale area. Potential bidders are in a serious supply shortage. If expedited, this sale will assist them to survive and to continue to employ workers in the region. } 1
- B. We request that layout, design and volume reductions relating to protection for the Northern Goshawk be re-evaluated in light of the decision of the U. S. Fish and Wildlife Service to not list the Goshawk as threatened or endangered. } 2
- C. We request a reevaluation of the magnitude of the volume reduction relating to minimizing visual impacts due to the limited traffic, transit time and quick greening of the area acting to minimize negative impacts to those who may view the harvest areas. } 3
- D. we request that layout, design and volume reductions associated with protecting the Alexander Archipelago Wolf be re-evaluated in light of the decision of the U.S. Fish and Wildlife Service to not list the Wolf as threatened or endangered. } 4
- E. We request that volume reductions relating to Duncan Salt Chuck Creek, be noted, but re-established in the timber sale volume quantity until it is formally designated a "wild and scenic" river by Congress. } 5

6 { F. We request that the Bohemia Mountain Winbox Salo road plan be modified to allow timber harvested from the west side of Portage Bay to go to the Little Hamilton Bay LTF, and timber harvested from the east side of Portage Bay to go to the Portage Bay LTF.

7 { G. We request a modification to the preferred alternative which minimizes helicopter logging requirements to the point where the timber sale can be conducted in a non-deficit manner.

8 { H. Considering the climatic conditions of the timber sale area we request that wildlife and fish access/harvest timing restrictions be established jointly with the successful bidder so as to mitigate negative economic impacts to the bidder while still protecting fish and wildlife populations.

9 { The Land Use designation for this area clearly states that the area should be managed "for intensive resource use and development where emphasis is primarily on commodity or market resources". Intensive, means "exceptionally great concentration..." (Am. Her. Dict.). The Forest Service has not managed Bohemia Timber Sale lands in the manner required by the TLMP Designation.

A glaring double standard is obvious when looking at how the Forest Service administers non-timber land use designations when compared to the land set aside for timber harvest. Lands not set aside for commodity production have a 95 to 100 percent purity-of-use, where commodity production is not an allowable use of those lands. Yet treatment of the Bohemia T.S. shows an unfair, complete, reversal of this purity-of-use standard by elevating, non-priority land uses above the specific, targeted, use of the land as clearly established under the Forest Plan. Under the preferred alternative over 90 percent of the land and commercial forest specifically set aside and designated for commodity production is excluded from the use it was set aside and intended to intensively accommodate. This upside down, and inconsistent, approach to meeting the intent of TLMP Land Use designations exists in spite of millions of acres of the Tongass National Forest which were specifically set aside by Congress as single purpose land (wilderness, wild & scenic rivers, etc). Forest lands, which have been set aside and given a clear precedence for intensive commodity use, should be allowed to have priority over other uses and values on those designated lands to the same degree that non-harvest lands are managed purely for non-commodity uses and values in other parts of the forest.

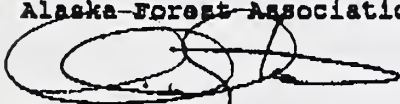
11 { The result of this administrative change in TLMPPlan required management emphasis will be added negative impact to the values being cited as justifying a reduced harvest. By spreading road building and harvesting impacts over greater areas of the forest (in order to try to recover "lost" commodity production), impacts to wildlife, fish, recreation, and other values are being negatively impacted to a greater degree, than if lands set aside for intensive harvest were, in fact, allowed to be intensively harvested. All groups, users and administrators "win" if impacts can be consolidated where efficiencies of management, harvest, mitigation and amelioration are enjoyed by all stakeholders. Bohemia T.S. can and should provide more volume than is contained in the preferred alternative.

We respectfully request a substantially greater harvest be designed for this sale area to reduce forest wide negative impacts while better meeting congressional intent and, social and industrial needs of the region.

} 12

Thank you for the opportunity to comment on the DSSEIS Bohemia Mountain Timber Sale. Please contact this office if questions and/or requests for additional information arise as a result of our comments.

Sincerely,
Alaska Forest Association



Christopher H. Gates
Executive Director

CC: Timber Issues Committee - AFA

Letter from Alaska Forest Association, Inc.

- Comment 1:** We request expedited processing of the remaining EIS tasks leading to sale and harvest of timber from this sale area.
- Response 1:** This sale is scheduled for advertisement in September 1995.
-
- Comment 2:** We request that layout, design and volume reductions relating to protection for the Northern Goshawk be re-evaluated.
- Response 2:** The goshawk is currently a candidate and USFS sensitive species. As specified within the 1995 DSEIS no nests have been located during goshawk surveys. Since no nests have been located, direct measures (e.g. unit design and volume reductions) for the protection of the goshawk have not been implemented. The goshawk has been identified as a species with potential viability concerns. The Regional Office is currently addressing the viability issue for a variety of species. The 1993 FSEIS addresses the viability issue by displaying the possibility of adopting HCAs, similar to the ones suggested by the Viability Committee. Currently the USFS has not adopted a viability strategy for the Tongass N.F.
-
- Comment 3:** We request a reevaluation of the magnitude of the volume reduction relating to minimizing visual impacts....
- Response 3:** The visual resource analysis for the 1993 FSEIS considered the number of visitors, duration of view, and visual recovery of harvest units in its assessment. The reduction of unit size and subsequent volume reduction, contributed to selected alternatives meeting the visual resource objectives.
-
- Comment 4:** We request that layout, design and volume reductions associated with protecting the Alexander Archipelago Wolf be re-evaluated....
- Response 4:** The wolf is currently a candidate species. No direct measures (e.g. unit design and volume reductions) for the protection of wolves have been implemented. Protective measures have been implemented which would have indirect effects on wolves, such as avoid impacts to deer winter habitat and road closures. Since the wolf has been identified as an issue, the 1995 DSEIS addresses the factors which are currently thought to impact wolves.
-
- Comment 5:** We request that volume reductions relating to Duncan Salt Chuck Creek, be noted, but re-established in the timber sale volume quantity until it is formally designated a "wild and scenic" river by Congress.

C Appendix

Response 5:

The Forest Service has specific interim management guidelines on how to manage eligible rivers: "Management and development of the identified river and its corridor cannot be modified to the degree that eligibility or classification would be affected."

The interim management of eligible rivers requires protection of the rivers' free-flowing characteristics, outstandingly remarkable values, and the river corridor (¼ mile on each side of the river), to a level of their highest potential classification.

From Forest Service Manual 2354.21 Washington Office Amendment, 7/8/94: Management of Study Rivers. Manage wild and scenic river study areas to protect existing characteristics through the study period and until designated or released from consideration.

Comment 6:

We request that the Bohemia Mountain Timber Sale road plan be modified to allow timber harvested from the west side of Portage Bay to go to the Little Hamilton Bay LTF, and timber harvested from the east side of Portage Bay to go to the Portage Bay LTF.

Response 6:

Please see Responses 2 and 3 to the letter from the Narrows Conservation Coalition.

Comment 7:

We request a modification to the preferred alternative which minimizes helicopter logging requirements to the point where the timber sale can be conducted in a non-deficit manner.

Response 7:

We agree that, generally speaking, helicopter logging is the most expensive logging system. Of the action alternatives, only Alternative 4A foregoes all helicopter logging. The other three action alternatives (3, 5B and 6) all harvest the same amount of area by helicopter (134 acres). As a proportion of total acres planned for harvest, Alternative 5B has the smallest percentage (9.7%) of acres to be logged by helicopter (Alternative 3 has 39.5% and Alternative 6 has 10%).

Portions of the project area have been entered in the past for timber harvest without the use of helicopter yarding. Many portions of commercial forest lands within the project area do not lend themselves to road construction. Therefore, future timber harvest entries in the project area will require helicopter yarding. It is not reasonable to postpone all helicopter yarding for future projects.

An analysis of the economics of this timber sale using current end-product selling values indicates that the sale has good potential to be profitable to an operator of average efficiency. This sale is expected to sell. Please see Chapter 4, Timber section, of the 1995 FSEIS.

Comment 8:

Considering the climatic conditions of the timber sale area we request that wildlife and fish access/harvest timing restrictions be established jointly with the successful bidder so as to mitigate negative economic impacts to the bidder while still protecting fish and wildlife populations.

Response 8: Timing restrictions are often fish and wildlife mitigation measures, agreed upon by the Forest Service and Alaska Department of Fish and Game. Other federal agencies such as National Marine Fisheries and the US Fish and Wildlife Service can be involved. These timing restrictions are known prior to the selling of the timber sale and are not normally negotiable between the timber purchaser and the Forest Service.

Comment 9: The Land Use designation for this area clearly states that the area should be managed "for intensive resource use and development where emphasis is primarily on commodity or market resources"....The Forest Service has not managed Bohemia Timber Sale lands in the manner required by the TLMP Designation.

Response 9: The Tongass Land Management Plan (TLMP) recognizes that the Bohemia Mountain project area is to be managed with an emphasis on commodity or market resources, with the exclusion of the LUD II lands within the project area. The planning for this timber sale is implementing that direction. TLMP also requires that commodity resource development must be accomplished in concert with standards and guidelines established for the protection of other resource values.

Comment 10: Forest lands, which have been set aside and given a clear precedence for intensive commodity use, should be allowed to have priority over other uses and values on those designated lands to the same degree that non-harvest lands are managed purely for non-commodity uses and values in other parts of the forest.

Response 10: The examples that you use to illustrate the point of lands being "single use" include wilderness and wild and scenic rivers. These two examples, however, are not "single use" lands, but provide management for a myriad of resources; wildlife, fish, heritage resources, recreation, subsistence, scenery, and tourism to name a few. Activities occurring within these areas must meet the standards and guidelines established for the protection of other resource values. That same principle applies to areas where commodity development is allowed. That development must be in concert with the standards and guidelines established for the protection of other resources.

Comment 11: By spreading road building and harvesting impacts over greater areas of the forest...impacts to...other values are being negatively impacted to a greater degree, than if lands set aside for intensive harvest were, in fact, allowed to be intensively harvested....Bohemia T.S. can and should provide more volume than is contained in the preferred alternative.

Response 11: The Tongass Land Management Plan (Forest Plan) allocates land areas to emphasize different uses. This, in effect, concentrates timber harvest in areas allocated to commodity resource development. The Forest Plan also establishes standards and guidelines for the protection of resource values. These standards and guidelines limit how much timber harvest can occur in a given area, over a given period of time.

The range of alternatives for this project examines different concentrations of timber harvest over different areas. Alternative 3 concentrates harvest on the east side of Portage Bay. Alternative 4A concentrates harvest on Bohemia Mountain. Alternative 5B and 6 harvest in both the Portage and Bohemia areas.

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Comment 12: We respectfully request a substantially greater harvest be designed for this sale area to reduce forest wide negative impacts while better meeting congressional intent and, social and industrial needs of the region.

Response 12: We believe that this project was designed to meet congressional intent and social and industrial needs of the region while providing for the multiple use and sustained yield of all renewable resources. Also please see Response 2 to the letter from Ketchikan Pulp Company and refer to the 1993 FSEIS Chapter 1, Additional Guidance section, page 3.

Alaska Lumbermen's Association

P.O. Box 7135 Ketchikan, AK 99901 (907) 247-2088 Fax: (907) 247-2692

June 15, 1995

Dave Helmick
USDA Forest Service
P.O. Box 309
Petersburg, AK 99833

Dear Dave:

Please accept this response of the Alaska Lumbermen's Association for the 1995 Draft Supplement to the Bohemia Mountain Supplemental Environmental Impact Statement (EIS). I hope that this extension of the SDEIS public response period will not prolong the offering of the Bohemia Timber sale any longer since it has been ready for sale since 1990 and industry is in dire need a federal supply of timber.

ALA agrees with the Forest Service that Alternative 5B is the most admirable avenue to pursue. We recognize this alternative as the only alternative which, by offering the most timber volume, will prove economically viable for the successful operator and at the same time recognizing environmental concerns and federal forest management accordingly.

I would like to take note of a few areas that ALA feels need to be addressed either for present or future EIS documents.

1) In the issues subsection of the Purpose and Need section, I feel a few other aspects need to be considered when deciding what social and environmental concerns this decision may affect. These might include whether the SBA and independent processing facility capacity will be met over the course of the operating season and whether the expedited release of this sale would benefit the industry. Another may enlist the services of the Regional Economist Kathleen Morse to address the effects to communities, economically and vocationally, should this timber not be advertised and regional SBA timber processing capacity not be met.

2) In the timber sale economics section of Chapter 2, I would question the appraisal process and how it equates with the road building requirements of this sale. Will the sale be appraised to current road building costs or will the sale be subject to road building costs as they existed when this initial EIS was published in the Federal Register on January 22, 1990?

3) Perhaps we should not add martens into the equation when they may not even be indigenous to this region. I see a lot of documentation where Martens may end up becoming the stopper to timber sales on the region due to their speculative endangerment.

4) I do not believe that the Alexander Archipelago wolf should be considered a factor against the possible implementation of any future timber sales. Not as long as federal and state game agencies fail to recognize it as an endangered species and as long as the State of Alaska allows regulated wolf harvest. These two examples clearly show no need for such protectionary measures that might hinder future timber harvest. This agency may also look into the relevance of adding goshawk protectionary measures in timber harvest preparation documents; another species which has failed to prove its need for sensitive species listing and subsequent protection.

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5) Why would this agency announce a candidate for sensitive species listing if the species is not even "known to occur in the study area"? This phrasing was used exactly in the description of the Kittlitz Murrelet, a species which, it would appear, was only used to appeal to preservationist emotions rather than pertain to proper forest management as this EIS suggests.

6) In the Plants section, this agency is once again relying upon speculation rather than facts and common sense to acquire this documents approval. It states that "one species is known to occur and 9 are suspected of occurring in the Bohemian study area". In addition, there are a total of 22 plant species listed of which one qualifies as actually being in existence in the study area. I feel that this one species should have the time taken to evaluate its future existence but to guess that others exist and then list them as possible candidates for sensitive protection is absurd and a waste of taxpayers money and operators time.

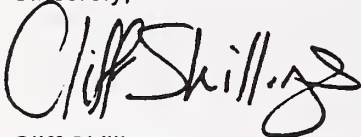
7) With the road building that will be conducted on the end of the 6030 road and the road building headed west on the 6031 road, why is it necessary to not build the mile long extension it would take to connect these roads together? This would open new subsistence hunting and fishing opportunities for the community of Kake and possibly even create an opportunity to gain access to the community of Petersburg. ALA feels that these two road segments joining together makes financial and opportunistic sense for both the surrounding communities and corresponding industry.

ALA feels that with the current timber trend leaning toward enjoining timber sales (ie: AWRTA v. Forest Service), the Forest Service should do everything in its power to expedite this sale to maintain the viability and operational status of the southeast Alaskan independent and SBA timber operators. There is currently no NEPA cleared, non-APC independent timber sale volume to be offered this year aside from the Bohemia Mountain timber sale. Bohemia Mountain offers the only opportunity for the independent operators to purchase a larger sale and keep regional mills operating.

Regional Economist Kathleen Morse is correct to say that there is available independent timber operator capacity and strong market demand for this timber. Please be swift in your decision, maintain a ROD target on this sale for FY 95, and adopt Alternative 5B..

Thank you for the opportunity to provide written comment concerning the Bohemia Mountain timber sale SDEIS.

Sincerely,

A handwritten signature in black ink that reads "Cliff Skillings". The signature is stylized with a large, looped "C" and a long, sweeping underline.

Cliff Skillings
Executive Director